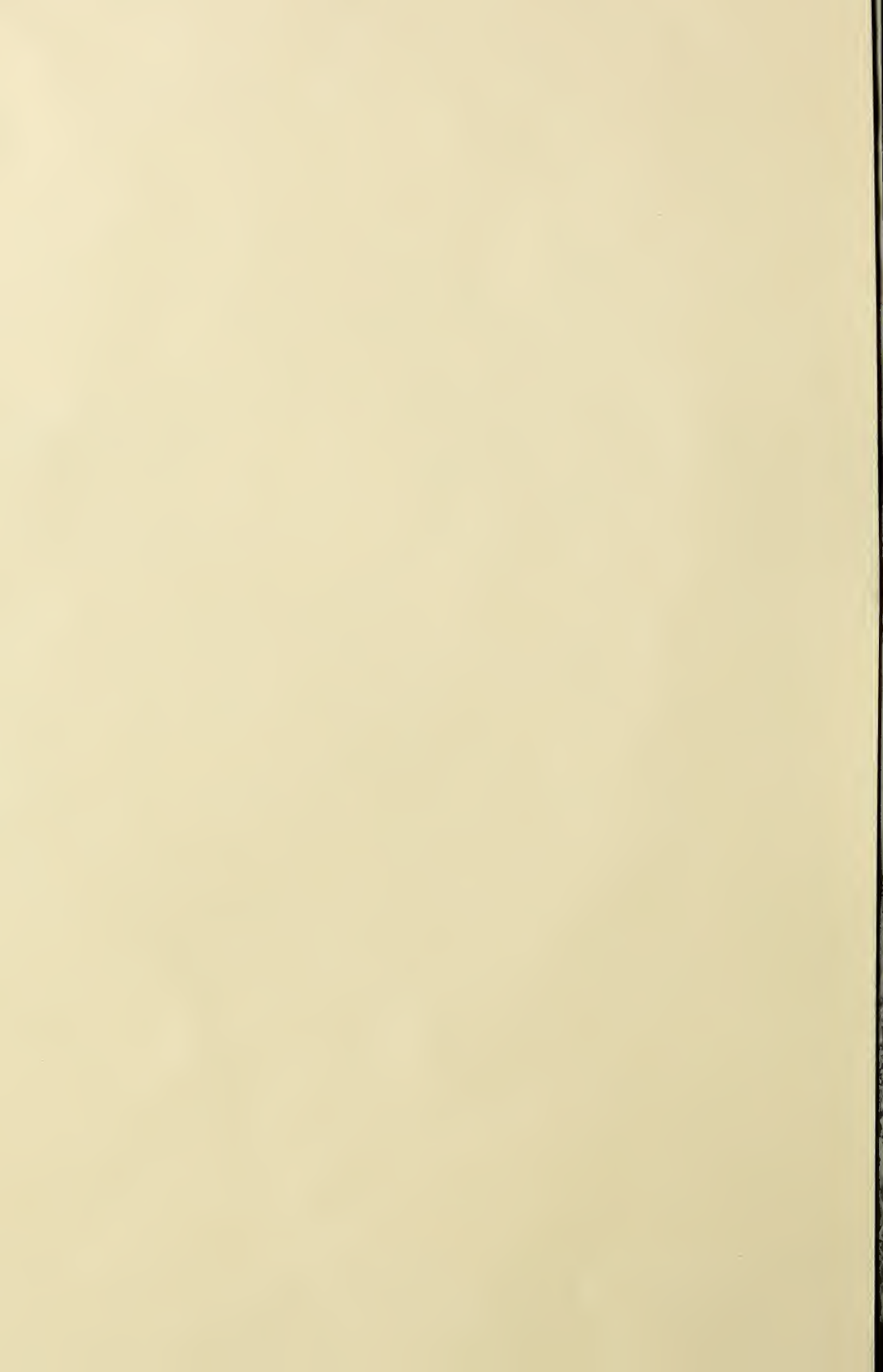


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Gleanings in Bee Culture

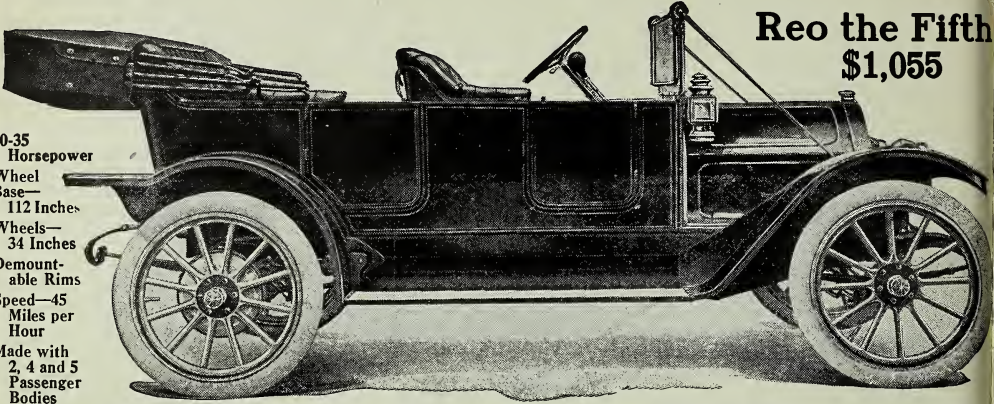
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VOL. XL AUGUST 15, 1912 NO. 16

Reo the Fifth
\$1,055

30-35
Horsepower
Wheel
Base—
112 Inches
Wheels—
34 Inches
Demount-
able Rims
Speed—45
Miles per
Hour
Made with
2, 4 and 5
Passenger
Bodies



Top and windshield not included in price. We equip this car with mohair top side curtains and slip-cover, windshield, gas tank and speedometer—all for \$100 extra. SELF-STARTER, IF WANTED, \$20 EXTRA.

The Center Control

By R. E. Olds, Designer

Nearly every builder of high-grade cars is designing a center control.

In another year, cars with side levers which block a front door will be so out-of-date as to hardly be salable.

Bear this in mind in selecting a car. The side lever car is now a back number, as every maker knows.

Left Side Drive

In some cars the side levers are merely moved to the center. That idea won't do. Men want to get rid of the reaching. They want the front of the car to be clear.

In Reo the Fifth there is only one lever, and that is placed close to the seat. All the gear shifting is done by moving this lever only three inches in each of four directions.

There are no brake levers, for both the brakes are operated by foot pedals.

This arrangement permits of the left side drive, as in electric cars. The driver sits close to the cars which he passes. He is on the up side of the road. In making any turn which crosses a road he is sitting where he can look back.

That is the greatest reason for the center control—to permit of the left side drive.

R. M. OWEN & CO.

Gleanings in Bee Culture

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VOL. XL

AUGUST 15, 1912

NO. 16

Editorial

OUR cover picture for this issue represents a field of buckwheat in full bloom, the flowers in the foreground standing out remarkably sharp and clear. In localities where only occasional fields are grown, this plant may not make much difference in the surplus honey crop; but it is often of great value in stimulating brood-rearing or helping to supply winter stores.

CROP REPORTS.

IN the way of crop reports and market conditions, the reader is referred to pages 509-512 of this issue. In the meantime we shall be glad to have our subscribers continue sending in their reports. Make them brief, so that we can publish them just as they are. Most of the reports given elsewhere are extracts from letters.

GLEANINGS IN THE "WINDMILL DAYS."

A REQUEST has been made that we issue a call for a show of hands from those who were subscribers of GLEANINGS 40 years ago, when our only source of power was that derived from a windmill. We would appreciate it very much if all such would give us their names, in order that we may publish a list of them. We are afraid that there are but few, after all these years, who are still keeping bees or reading GLEANINGS; but we are sure our readers would be glad to know who they are at this time.

FOUL-BROOD LAW IN TENNESSEE.

THE Tennessee State Board of Entomology has just issued (June, 1912) Bulletin No. 6, which is the amended law creating the Tennessee State Board of Entomology, and also the apiary-inspection law. One thousand dollars and expenses is the appropriation provided for the inspector, who, by the way, is appointed by the State Entomologist.

The first six sections relate to the appointment of the inspector, his authority, treatment, sale of infected bees, etc. Section 7 is as follows:

SEC. 7. Be it further enacted, That any person, firm, or corporation who shall bring into the State of Tennessee any colony or colonies of bees, shall immediately notify the Inspector of Apiaries of such fact, stating where such bees are being kept, and shall at the same time file with the said Inspector a certificate from the duly appointed Inspector in the county or State from which such bees were shipped, stating that such colony or colonies are free from any infectious or contagious disease; and in default of such certificate it shall be the duty of the Inspector of Apiaries to proceed to examine such bees, and ascertain whether they are free from foul brood or other disease. Any person, firm, or corporation who shall fail to notify the Inspector as required by this section, for a period of ten days from the arrival within the State of Tennessee of such colony or colonies of bees, shall be guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than five dollars nor more than twenty-five dollars.

Section 8 requires the boiling of any honey used in making queen-cage candy, at least thirty minutes, and also specifies that any person engaged in the rearing of queens shall have his apiary inspected at least twice during each summer season. If disease is discovered, all shipments of bees or queens are to be stopped until the inspector shall declare said apiary free from trouble.

A WIRING "KINK."

IN talking with Mr. A. B. Anthony, of Sterling, Ill., in regard to wiring frames, he mentioned a point which is very important. He makes no effort to get the wires absolutely tight, but still takes care that they be not too loose. After fastening in the foundation he takes pains to see that the upper wire is imbedded with what sag there is below an absolutely horizontal line. The middle wire he leaves straight, and the lower one he imbeds with the slack above the horizontal. The most sag is in the lower part of the combs, and it will be seen by this plan that the lower wire can move down with the foundation so that there will be less buckling. Mr. Anthony's frames are slightly shallower than the standard, so that he uses only three wires. If he used standard-sized frames, which have four wires, we suppose he would divide the amount of sag of the wires in the same way.

WHY DO SWARMS CLUSTER BEFORE LEAVING?

It is also Mr. Anthony's belief that swarms cluster until they can get word from some bees left in the parent colony that all is well—in other words, that there is means for a new queen left, so that the life of the parent colony is assured. To prove this theory, Mr. Anthony selected a swarm which left with a virgin, there being at the time one more virgin left in the parent hive. The swarm went into one of the upper branches of a tall tree, and clustered. Without making any effort to reach the swarm he quietly went to the parent colony from which the swarm had issued, and destroyed the remaining queen, so that the condition of the bees of the parent hive was hopeless. In about twenty minutes the swarm in the tall tree broke up; and, although accompanied by a queen, they returned to the parent hive. Mr. Anthony has not tried it more than this once; and while he realizes that his theory may be wrong, he knows that it certainly worked in this one case and saved him a disagreeable job.

HONEY STATISTICS FOR OHIO.

The annual report of the Secretary of State conveys the strange information that Ashtabula Co., with 975 stands of bees, produced 63,268 lbs. of honey in 1910, or an average of 65 lbs. per stand. This (Medina) county is credited with 6870 stands of bees that gave only 386 lbs. of honey the same year, or an average of only an ounce per hive. In respect to figures, these cause us to doubt their traditional truthfulness; but the blame may be justly attributed to those who handle said figures. While the yield in 1910 is easily believed for Ashtabula Co., the tremendous number of colonies credited to this county seems all out of proportion, as but few bees are kept in Medina County except at the Home of the Honeybees, and even these would not account for more than one-sixth of the number reported.

COMB-HONEY CANARDS AND SUNDAY PAPERS.

We have never taken much stock in Sunday papers—not so much because they are printed on Sunday, for, as a matter of fact, they are probably all finished before daylight on Sunday morning—but because of the fact that an immense army of boys and young men, who ought to be in Sunday-school, are engaged in selling these papers at newsstands and delivering them in various homes in our cities. However, the chief objection we have to the Sunday papers is that the news contained therein is

far less reliable than that contained in the papers issued on week days; for, as a rule, such news is garbled so as to be put in the most attractive form, and compiled in such a way as to be made interesting, whether truthful or not.

An illustration of the fact just mentioned is given in the St. Louis *Globe-Democrat* for June 30. In an article headed "The Busy Bee," the following statement appeared:

In fact, it may be confessed, though with regret, that man has gone still further, and has not only become able to produce honeycomb, but has also successfully, though to no great commercial extent, filled such comb with adulterated honey and capped the cells over, without putting his honeycomb into the hive at all! To such a pass has invention and adulteration of food come.

We have written the publishers, the Globe Printing Co., protesting against such a statement and have their assurance that they will publish at least a part of our letter correcting the mistake. But probably not more than one in ten who read the original statement will notice our reply.

MIGRATORY BEEKEEPING V. WINTERING BEES
IN THE NORTH; SHIPPING IN CAR
LOTS WITHOUT COMBS.

ONE of our correspondents, Mr. T. T. Taylor, in the Heads of Grain department of this issue, raises the question why it would not be cheaper to buy bees in the South, where they can be reared in large quantities, instead of going to the expense and risk of wintering in the North by the use of double-walled hives or elaborate and expensive bee-cellars. His plan seems to be that it is not necessary to keep bees all the year round, especially at such times of the year as they are consumers and not producers. At the close of the honey-flow he would double up his stocks into big ones, and in a comparatively short time have but little brood and fewer bees to destroy or move to pastures new.

If ever a plan of this kind was feasible it was during the past winter and summer; but, so far as we know, Mr. R. F. Holtermann and ourselves were the only ones in the United States who attempted to ship bees by the carload from the South to the North. The venture was a financial success with us, and probably was with Mr. Holtermann. In such migratory beekeeping every thing would depend on whether there would be a fair flow of honey after the bees were moved northward. If there was a big flow, bees might gather enough to pay the freight or even their first cost; but it would have to be a big yield to do it. So, generally speaking, we would have

to figure that the bees could not pay for themselves the first year. If that were true, they would have to be wintered over, and that would destroy Mr. Taylor's well-laid scheme. But our correspondent does not contemplate moving brood, combs, or honey. He would move just the bees in suitable shipping boxes without combs or honey, and in their stead supply queen-cage candy.

The scheme is not as wild as it looks. There has been quite a little correspondence between Mr. F. B. Cavanagh, of Hebron, Ind., and Dr. E. F. Phillips, of the Bureau of Entomology, Washington, D. C., and ourselves as to the feasibility of shipping a carload of bees in pound packages or even five-pound lots, without combs. Mr. Cavanagh's idea was to secure a crop in the North, then move the bees without combs after brood-rearing had practically ceased in September, say, and then ship all to the South; build them up well, on another set of combs, secure a crop of honey in the South, and after that is secured stop brood-rearing by caging the queens, and again move the bees North in the spring and so on back and forth. This would eliminate the northern wintering problem, and enable the owner with his bees to get two crops instead of one. When bees are shipped without combs in one-pound or five-pound packages, the freight would be materially reduced. Indeed, one could ship nearly a thousand packages without combs. Of course, the owner would have to go with them, and wet them down with a watering-pot, for bees in transit require a great deal of water.

We may say in this connection that, if the beekeeper makes the right kind of preparation, and gets in touch with the various railroad lines over which the bees are to travel, he can usually reduce the days on the route to half the regular time. Our last carload, for example, came from Florida in six days; and if, for instance, bees were to move from Nevada to California, they ought to go through in two days.

Our Mr. Ernest Marchant, son of A. B. Marchant, knows how to move bees in car lots; and there are many others in the country who can do the trick provided they will follow the directions we can give. The two carloads of bees which we secured from the South produced enough honey, although split up into nuclei on arrival, to pay about a third of their entire cost. We sold enough bees out of them to pay the rest of the expense, and

now have considerably more than two carloads of bees left with about 5000 pounds of honey in the hives. Mr. A. B. Marchant, before shipping them north (had the season been at all favorable, which it was not), could have secured a crop of tupelo honey. As it was, he obtained a light crop, and then shipped the bees north.

There is another feature about this proposition that looks attractive. Bees shipped without combs would not carry disease. At the present time there is a great outcry in California against the shipment of so many carloads of bees from other States; and in some cases, at least, American and European foul brood have been imported. We can not blame the beekeepers in California for complaining; yet if the bees were shipped in wire-cloth cages holding about five pounds, and if they could be shipped through successfully (and we believe they could), all danger of disease would be eliminated, and the cost of shipping 1000 combless colonies would be no more than 250 colonies on combs in hives. If the beekeeper owned a set of combs and hives at each end of the route, and could arrange to let all the brood hatch by caging his queens before shipping, he would stand a fair chance of securing two or three and possibly four crops in place of one or two. Where is the man of brains and capital to try it out? Perhaps a group of beekeepers could chip in bees and money and hire one of their number to carry out the scheme. This would divide the cost so that if the project proved a failure such failure would not fall upon one man.

We believe it is *possible* to make a scheme of this kind work, and make money; but we would not advise any one to enter into it on a large scale, as he might meet with catastrophe. It would require experience as well as skill.

There has been a big trade in bees shipped by the pound and half-pound. It has passed the stage of experiment and now is an assured success; and, moreover, it eliminates practically all the danger of spreading disease.

It is possible that legislation will in time require the elimination of combs, brood, and honey when bees are shipped from one State to another, or from one locality to another.

We should be glad to have this question discussed; and if there is any beekeeper or group of beekeepers who feel inclined to carry out the experiment we should be pleased to give them all the information they may require.

Stray Straws

DR. C. C. MILLER, Marengo, Ill.

H. H. BROWN, replying to your questions, just once I saw a laying worker deposit eggs. I don't know whether a laying worker lives longer than other workers—would guess she does. If young brood is furnished, I *think* a young queen will be often reared, putting the laying workers (not worker) out of business.

A. I. ROOT, I'm interested in watching Terry and you trying to reach the 100-year goal; but I'm not so wonderfully stuck on waiting to see the outcome of flying-machines, etc., p. 457. New things will be coming up all the time whose outcome you will want to see, and you'll never want to get away. Besides, I'm sure I can watch the outcome just as well after I get to heaven (if I want to), and have a more comfortable seat while watching the performance.

P. C. CHADWICK, p. 435, they'll say black stockings are stung more than bare legs, not because of color, but because of cloth. Try one stocking black and the other white. [It was Jay Smith, if we are not much mistaken, who reported how two dogs, one black and the other white, went racing and "cavorting" through his beeyard. The black dog was badly stung, while the white one was not touched at all. A good many reports have indicated that bees will sting black clothing when they will not attack white. We do know this—that they will attack black spots in clothing; and we suppose this is because they think they are striking at the eye of their victim. Some people say that bees do not think or reason; but they do something that is equivalent, at all events.—Ed.]

THE *Beekeepers' Review* gives a scheme for queen-candy that, when used for mailing queens, is foul-brood proof. Don't use honey at all—use syrup of granulated sugar, with enough glycerine to prevent granulation. [Here is a recipe that is said to be foul-brood proof also:

The candy feed such as I sent in queen-bee mailing-cage is made of granulated sugar, glucose, coffee A sugar, cream of tartar, and water, boiled to 238 degrees. The mailing-cage is the common Benton cage made by the Falconer Mfg. Company. This same kind of food I have, brought through since January, 1912, nearly all of my bees. I could not feed them last fall, on account of sickness and death in my home. I have a number of letters from beekeepers who used this food this last spring with good results.

Blackstone, Mass.

C. F. FULLER.

We have not yet had an opportunity to try it, as we have not yet secured a high grade of glucose nor any kind that is fit for the purpose.—Ed.]

MR. EDITOR, I've urged glass as wide as possible in shipping-cases, to make a fine show; but now if you're going to throw out glass altogether I'm with you. It will be a relief not to have to worry for fear veneering is done—strength of case and saving in expense count too. [Good! glad to know that we can join hands in the shipping-case proposition, even if we can not agree on the width of glass. A shipping-case with solid wood, front and back, has about twice the strength of one having a wide glass front. Try it out and see what a difference there is in the rigidity of the boxes. In proportion as the shipping-case is weak or wobbly, in that proportion we have broken combs and a lot more that are leaky.—Ed.]

Looks rather logical, Bro. A. I., p. 460, instead of punishing the murderer who is crazed by drink to punish the man who sold him the drink. But it's better to go for the men "higher up." The saloon-keeper is doing a legitimate business. Go for the men who make it legitimate, the men who make the laws, and, still further back, to the Christian men who vote for them. If you electrocute all who are responsible for murders committed by men in drink there will be some thinning out of our church rolls. [But the trouble is, doctor, we can not get the men who are higher up—too many times their tracks are covered. By getting the saloon-keepers we may be able to get them to "squeal" on the men back of them. Of course, you can never get the voter. He can vote for the meanest man that ever lived. It would be an excellent law that would enable us to hold any saloon-keeper liable for any damage a man may do to life and property as the result of liquor that he sells him. Such a procedure would enable us to reach the man higher up. For example, in Ohio just now our officers are getting after our State senators and representatives who have taken bribe money in consideration of their votes in the General Assembly. Three men have been found guilty, and sent to the penitentiary. A lot more have been indicted; and the prosecutor says he will send the whole bunch of them to the penitentiary. Well, it happens that these indicted men are beginning to cry out "Enough!" They are now willing to "peach" on the men higher up. Misery loves company. The bribe-taker is not always going to keep still. It looks now as if we were going to get some of the bribe-givers.—Ed.]

SIFTINGS

J. E. CRANE, Middlebury, Vt.

No more correct statement was ever made than that of Mr. Holtermann on page 228, April 15, that the best place to get foundation drawn out is in a super over the brood-chamber of a strong colony.

The Editor says, April 15, p. 223, "It is true that still air, although the temperature be much colder, is not nearly as severe on bees as a warmer temperature when a gale is on." Quite true. The same rule applies to bees as to human beings.

Passing under some basswood trees yesterday by the sidewalk I noticed they had dropped their blossom buds before opening; and, in fact, the entire flower stem, the sidewalk being nearly covered with them—something I have never before seen.

Mr. Foster's description of his early home on page 330 was profitable as well as pleasant reading. Every such home is worth to the country more than a goldmine. If beekeeping makes such homes possible, hurrah for beekeeping!

Dr. Miller, Apr. 15, p. 223, says that poultry in the United States in 1910 was worth 14.79 times as much as bees, "*according to the Bureau of Census.*" Pretty poor authority on bees. Some time ago a man taking the census refused to take my bees at all.

One of the charming sights the beekeeper enjoys in late June is the luxuriant fields of alsike clover with its innumerable blossoms of every shade, from white to red; and their fragrance! how delightful! Surely "Its smell is as the smell of a field that the Lord hath blessed."

Testimony as to the value of sweet clover continues to accumulate, and I dream of the time when in some measure it will take the place with the beekeeper that basswood has filled, as it blooms at about the same time. I believe that, when the present prejudice has died out, sweet clover will prove of great value to both farmer and beekeeper.

I wonder if we beekeepers half appreciate the care the editors of our journals take to give us just the information we need at this season. Just look over the May numbers of GLEANINGS and see how many

articles there are on making increase, putting on supers, etc., by such authorities as Doolittle, Townsend, Dr. Miller, and others.

I was rather surprised at the statement of P. C. Chadwick, p. 297, May 15, that sealed brood will stand a temperature as low as 40 degrees. I am glad to know it, for the advice about spreading brood is just as good here in the East as in California. I have found that a good way to build up those weak colonies is to change eggs or young larvae for mature brood, and so quickly get them in good order.

There was a good show of clover the past spring; but the weather was cold and rough until June 22, and by July 1 we were in the grip of a severe drouth with tropical heat; and by July 10 apparently most clover was dried up; but bees have done very well. I think it must be one of those years Mr. O. O. Poppleton, of Florida, tells of, when the bees make honey from fence posts. But I notice it has the flavor of clover.

The theory and practice of putting on supers by Dr. Miller, page 281, May 1, is not only worth careful reading by beginners, but careful study until thoroughly understood. A good deal of light has been thrown on this subject in comparatively recent years. I used to think it unnecessary to put on a second super until the first was about two-thirds or three-fourths full, so that, while the bees were finishing the first super, they could begin on the second; but I have found in recent years that in a good flow a good colony will sometimes fill two moderate-sized supers almost as soon as they will one.

I greatly fear the article on p. 275, May 1, on extra rapid increase, will mislead beginners in beekeeping. Thirty colonies from one, and that in a poor season, we are informed! I am naturally skeptical, and so doubt if one experienced beekeeper in fifty or even a hundred could do as well, and produce thirty colonies from one that would be worth wintering, even in a good season. Much more helpful to me are "Lessons Learned from Mistakes in Beekeeping," page 283. A child learns to walk quite as fast when he falls as when he stands erect. We must win strength by struggle in this world. I haven't much use for the man who is so angelic he never makes a mistake.

Beekeeping in California

P. C. CHADWICK, Redlands, Cal.

Extracted honey scores again. A small crop was secured where comb honey would have been impossible.

* * *

I fear some queen-breeders are like fancy poultry-raisers — sacrificing productive qualities for showy stock.

* * *

Paint your hives. A good coat of paint occasionally will make a hive last for years. Without it the hive is soon sun-checked, season-cracked, warped, and fit only for kindlingwood.

* * *

I am in receipt of a copy of "Texas Beekeeping," the compliments of Mr. Louis H. Scholl, who is also its editor. It is issued by the Texas Department of Agriculture, and is one of the most complete works of its kind I have ever seen.

* * *

A honey-buyer gave reports of how many cases of honey he bought here, and how many somewhere else, which was, I believe, entirely true; but he was implying that this was new honey, while the fact was that much of it was last season's crop, but was used to influence the market in the buyer's favor.

* * *

Bees as property are much like animals: well cared for they are a valuable asset; but poorly cared for their value decreases according to the care given. As for ability to conform themselves to conditions, they are in some respects superior to man, especially in that they refuse to reproduce when there is nothing coming in on which to feed their young.

* * *

A beekeeper of more or less prominence, in speaking of the difference in the growth of the sage this year and last made the assertion that last season the growth was much longer and contained from twelve to fifteen buttons on each stem; but as a matter of fact there are rarely ever more than ten buttons on a stem, while five to seven is the rule. I mention this to show how closely the flora is observed by some.

* * *

How ruthlessly our theories are sometimes upset, and a set line of practice becomes impossible! Nearly two years ago I wrote an article for this journal on management of bees, in which I spoke of hives at the beginning of the honey flow containing from 7 to 17 frames of brood. I was

perfectly justified in every assertion made; but since that time I have not seen a hive with over ten frames of brood, and some lines of management spoken of in the same article have not been at all practical since; yet I am sure I will return to that line again under more favorable conditions.

From this, one can see the difficult position of the novice who reads, and decides to follow a writer's suggestions; but conditions change, and he knows no way out of his difficulty until he has knowledge that will point the way to the next best course to pursue.

* * *

How often it happens that a weak colony will struggle nearly through the entire season, requeening and getting built up, only to bloom out the following season with a vigorous young queen and a hive full of bees, while the best colony the previous season will struggle along with an old queen and make a dismal failure! Queens in this climate should not be carried over to the third season. Two seasons of active work will put them beyond their best, and I believe we should all be better off if we would practice requeening after every season's honey flow.

* * *

July 18 marked the end of another beekeeper. Mr. Walter Parrish, once a prominent queen-breeder of Lawrence, Kansas, and widely known through this branch of the bee industry, passed away. Mr. Parrish had every promise of becoming a renowned queen-breeder, and was receiving daily orders for his queens in the summer of 1910, when, to his astonishment and dismay, he discovered foul brood in three colonies he had purchased. This ended Mr. Parrish's queen-rearing. Though receiving daily orders, he at once began to return his customers' money instead of queens. Though his queen-rearing colonies were free from disease, he refused to let any customers take risks he would not care to take himself. Mr. Parrish had never been strong, and this was quite a shock to his ambitious nature, and probably helped to undermine his health. In the fall of 1911 he decided to come to California, which he did; but his health was not regained, and he failed rapidly, the end coming as stated above. What better tribute could be paid to this young man, in his thirty-first year, than that he sacrificed his business for the sake of his customers' welfare? He had many customers in California.

Beekkeeping in the Southwest

LOUIS SCHOLL, New Braunfels, Texas.

THOSE PICTURES OF L. C. ROOT.

When the July 15th issue appeared I enjoyed those pictures of L. C. Root very much indeed; and it has occurred to me that GLEANINGS ought to give more pictures of the other well-known beekeepers of the country in much the same way. It is a pleasure to see these old veterans, snapped right among the bees. It would be appreciated by all of us, I am sure, if we could have a glimpse of the many old-timers as they look to-day.

* * *

CHUNK HONEY.

It seems that our northern friends are trying to insist on the name "chunk honey" for the product known entirely as "bulk comb honey" in Texas. Just why this should be, we can not understand. For a Texas beekeeper to use the term "chunk honey" for bulk comb honey is looked upon as gross ignorance of the real name for this product. Bulk comb honey is the proper name, and it should be used. Being strictly a product of commercial importance, originating in Texas and named by Texas beekeepers "bulk comb honey," it is only right that others should be expected to use that name.

The term "chunk honey" is entirely out of place in the Texas beekeepers' vocabulary as a general rule. That name is out of date, and the product now produced as bulk comb honey is so much superior in the way it is produced, packed, and marketed, that the newer name is well warranted.

It is hoped that the old-fashioned term "chunk honey" will be put aside, and "bulk comb honey" used instead. The latter term covers all comb honey produced in frames or otherwise, then cut out and marketed. There are many ways in which bulk comb honey is marketed. However, in Texas, the home of this kind of comb honey, it is almost entirely marketed in standard-sized tin packages in wooden cases.

* * *

MOVING BEES WITHOUT SCREENING.

Although we have argued against taking the risk of moving bees with the entrances of the hives wide open, the subject comes up again every once in a while. There would be no objection to this if it were not a fact that beginners are apt to be misled. I have seen several instances of this kind. Of course, there is not so much danger connected with this method of moving when the automobile truck is used, as in the case of J. Van de Vord, p. 445. With

horse-drawn vehicles it is by far the best and wisest plan to close the hives securely upon all occasions, providing for proper ventilation during warm weather, of course.

After giving open-entrance moving a trial upon several occasions, both during cool and warm weather, I have concluded to denounce it under all circumstances. It does not work satisfactorily enough in the first place, especially if colonies are strong or the weather is warm, as the bees cluster outside and all over the hives. They often crawl all over the wagon in spite of frequent smoking. This is the result with night moving, and during the day such moving can hardly be done. It takes a lot of time and precaution to get them on the wagon with a lot of smoking; and while they will remain reasonably quiet while the load is in motion they come out of the hives as soon as the wagon stops. This is bad if a sudden stop must be made, as in case of an accident or otherwise while on the road. We do not like this method. It is safer and wiser to screen the entrances.

* * *

HIVE-NUMBERS.

Manilla hive-tags boiled in paraffine, and cheap to replace when they are worn out, sounds good enough, Mr. Editor and Dr. Miller; but the matter of fastening them to the hive—that is the question I am driving at. I want a number that will last while I can shift it from place to place in a jiffy—that is to say, one that I can put on either end of a hive or super, if the hives are reversed end for end; also if I want to raise the brood-chamber up, and I'd like to have the number tag on the lower one just given. This is especially necessary with our numerous manipulations with the divisible-brood-chamber hives. It would cost me thousands of tacks and a great lot of tacking, with ten thousand supers in use, any of which may come into place at any time where it must bear the number tag. Understand?

Well, I am tickled because I have invented such a tag, and have been using it for several years. It works like a charm, can be placed on the hive in a jiffy, taken off and placed somewhere else in a jiffy, and not a single tack, nail, nor staple is needed; and it is cheap enough for me, especially if the value of such a number tag is considered. It is difficult to describe it, so I'll make drawings of it and show you. It can be made to fit your hives too, Dr. Miller, as well as yours, Mr. Editor.

Conversations with Doolittle

At Borodino, New York

USING "BAITS" TO THE BEST ADVANTAGE.

I have read with interest what you have been telling us about bait sections; but you have not told us how to use them to the best advantage. Some put them in the center of the super so that the bees can work both ways from them, drawing out the foundation on either side till the ends of the supers are reached. I may not be up in this matter; but it looks to me as if it would be better if there were some way of using them so that the sections near the ends of the super would be finished up within a few days of the time the center ones are. Where the sections at the ends of the supers are two weeks behind in finishing, I find that those finished first in the center of the super are often badly travel-stained, so much that they have to go in a grade lower than would be the case could the super come off when these are first finished.

Something depends on the number of baits we may have at the beginning of the season. To get at the matter we will suppose we have 100 colonies which we expect to put supers on for section honey; that we use a super holding four rows of sections, 11 sections in a row, or 44 sections to the super, and that we have only 100 baits. I know of no better way to use them than to put one of these in the center of one of the center rows. This bait will have five sections filled with foundation on either side in that row, and in the other three rows. The bees will begin work in the center of the supers; and if the season is poor, or the sections put on early, the center sections in such supers will be finished long before those next to the ends of the supers. But we have the consolation that, even in this condition of affairs, the bees enter the sections much sooner than they otherwise would; and through this we not only secure more honey but discourage swarming.

If we have 200 baits they should be put in the center of the two outside rows. In this way the bees will commence work all through the center of the super at the same time. The drawing of the bees to the center of the two outside rows makes it warm in the middle rows, and for this reason the bees will begin to draw the foundation there as soon as they will on either side of the two baits. I find that baits are mostly used in this way unless there are as many as 400, when one is put in the center of each row. Then if the bees are somewhat crowded for room they will fill two-thirds of the sections so they will be near completion at about the same time, while the other third will be only a few days behind in all ordinary good seasons. Many tell me that 400 baits for 100 colonies in the spring is all that is necessary, and that they would not use more if they had them, other than to fill supers full of them, and put such on

the hives when the flow is at its height, under which circumstances they will be filled and completed so that they will go as No. 1 or fancy honey, which they claim can never be the case where sections are used as baits. I do not agree with those who argue thus; for if I could always have things just as I like them I would have 800 or 1200 baits for the 100 colonies, the latter preferred. With that amount I would fill the 100 supers in this way: I would put one in the center of each of the four rows; then I would put one in each of the four rows at either end, one section away from the ends of the supers. This would make each of the rows as follows: Beginning at one end there would be first a section filled with thin foundation, then a bait; then three sections filled with foundation; then a bait; then three of foundation; then another bait; and, last, one of foundation. This is the way I have used my supers for thirty years, if I could only furnish the 1600 partly filled sections from the year before. And I wish to go on record right here as saying that, so far as I can see, a super filled in this way has as good effect toward the prevention of swarming as does the putting-on of the first super of the season filled with all baits. Of course, with all baits and a good colony the *storing* will go on in all of the 44 about equally. With the twelve, storing will commence first in the *baits*, while the foundation is being drawn. But at the end of three or four days there will be little difference. Even the four corner sections will apparently be just as well filled as those at the center, when the whole of the 44 in the super will all come up to completion at the same time.

There is no prettier sight than a super of sections all alike in advancement, with not a cell yet sealed, though filled with water-white honey which sparkles and glistens in the morning sunshine. Not even the whole of the 44 sealed sections, with their snow-white cappings, look nearly so enchanting to me as does this mass of sparkling smoothness, and this is just what I have seen hundreds of times in the first supers of the season when I had enough baits. And where the season allows of their coming to completion thus, the man who could tell which sections contained the baits and which the foundation would have a sharper eye than most apiarists have, to say nothing of those who know of honey only as they buy it in the market.

General Correspondence

WHAT HAS THE SEASON BEEN?

Reports from All Sections of the Country

From the mass of correspondence that has been coming in from day to day we select out, as far as practicable to do so, a sentence or two that will give some idea of the honey season, and what it has been for the locality represented. We append here a list of such letters boiled down to one or two sentences, giving the name and address. These reports relate mainly to the white-clover districts, as will be noted.

ALABAMA

By July 1 I had taken 211 sections of beautiful comb honey from two colonies, spring count.

Selma, Ala., July 6. F. G. RAILEY.

It has been a most unusual season here. The winds have been blowing like March weather all the spring, and through the flow of sweet clover, drying out the nectar. We shall do well to get a quarter of a crop.

Letahatchee, Ala., July 30. W. N. RANDOLPH.

CALIFORNIA

Honey crop is a total failure. Bees will probably get enough to winter on.

Paines, Cal., July 11. GEO. W. MOORE.

We beekeepers have got a "black eye," sure. Nothing doing. Later reports, from higher altitudes, are more favorable.

Descanso, Cal., July 5. E. P. ST. JOHN.

Conditions indicate a small crop.

Standish, Cal., July 11. H. A. HARTMAN.

The honey-flow has not been very good here this season. The spring was late, and the weather was cold.

Nevada City, Cal., July 22. FRED A. THOMAS.

COLORADO

The season is a little backward, but the outlook for an average honey crop is fair.

Canon City, Colo., July 13. W. G. WRIGHT.

The honey crop to date is very poor, owing to cold weather. It can not be over half a crop in Northern Colorado.

Greeley, Colo., July 20. CHAS. ADAMS.

Honey crop in this location will be a little below the average. There are about 1000 colonies in this county, and will average one super each this year.

Canon City, Colo., July 20. V. P. CUTLER.

Prospects for flow are good, as a large quantity of clover is just beginning to bloom, and weather is less windy. The one danger is hail.

Las Animas, Colo., July 9. L. H. SWEETMAN.

Prospects are good in Colorado for a crop this year, though the losses have been heavy, and alfalfa is being cut very early. I believe that more honey will be shipped this year than last if present conditions prevail.

Boulder, Colo., June 25. WESLEY FOSTER.

The outlook for honey from this part of Colorado is not very bright. There are acres and acres of sweet clover, and it never looked better than it does now; but the weather through July has been cloudy and rainy, and bees could not get out to gather honey. I have 250 stands, and have taken off only six cases so far.

Delta, Colo., July 28. GEO. F. LESTER.

According to estimates just made, the honey crop on the Western Slope will total 35 or 40 cars, which includes the output from every station from DeBeque to Montrose. This is considerably in excess of the shipment for last year, as only 22 cars were sent to the buyers, netting the growers about \$80,000. The amount of honey which will be gathered from the apiaries around Montrose this year has been conservatively estimated at between six and seven cars, which is between

one-sixth and one-seventh of the total output. The beemen down the river from Montrose lost a number of bees last winter; but from Montrose south the loss is reported as being very small, and almost a full crop is expected. Each car, it is estimated, contains between 1000 and 1100 cases of honey, and is worth between \$3000 and \$4000.—*Montrose Weekly Press*, July 18.

CONNECTICUT

The honey flow is very poor. The future depends on the weather. The crop is not as good as last year. It has been very dry in this locality.

Bristol, Ct., July 22. MAPLEWOOD APIARY.

IDAHO

First flow light, owing to weak colonies and cool weather. Prospects are fairly good for next flow.

Meridian, Ida., July 10. E. F. ATWATER.

No swarms until after July 9; best white-clover and snowdrop flow we ever had; but the weather is so cool and cloudy that bees work only half the time.

Fraser, Ida., July 12. F. F. GEORGE.

INDIANA

We can not expect much from Indiana and Illinois this year, for two reasons—tremendous winter losses and a short clover crop. What little clover we have is yielding excessively, and weather conditions are fine.

Indianapolis, Ind., July 5. W. S. POWDER.

Abundance of bloom; basswood and white and alsike clover; nectar is flowing very slowly, especially from basswood.

La Porte, Ind., July 5. C. H. WAIR.

Clover flow is practically over; have secured a very small crop. Colonies were in fine shape, and no swarming. Clover did not produce the nectar, from some cause.

Odon, Ind., July 5. A. M. KECK.

Bees are booming; weather ideal; bloom plenty; result, best crop of honey for three years. I am getting 20 cts. per lb. by crate.

Richmond, Ind., July 4. M. H. WOLFER.

We are having a very fair honey-flow from red and white clover. The flow began about July 1; and with the good rain of yesterday it will continue several weeks, we trust. Our 600 colonies are in surprisingly good condition considering the increase.

Hebron, Ind., July 8. F. B. CAVANAGH.

There is an abundance of swarming. Basswood yielded well, but not many trees. White clover is fairly abundant, but does not seem to yield well, so that the prospect for a surplus is very doubtful.

Ladoga, Ind., July 9. DR. J. B. TALMAGE.

ILLINOIS

Clover flow is light—only one week; plenty of bloom yet, but no nectar. Milkweed and basswood yielded well; will get about 40 lbs. comb honey per colony.

Edinburg, Ill., July 18. W. H. STUMM.

The honey-flow thus far has been very good here; but owing to the severe winter losses of bees the honey crop will probably be no larger than last year, although of much better quality.

Beardstown, Ill., July 15. H. W. DOERR.

Half a crop of white honey in this part.

Versailles, Ill., July 15. D. C. CONNELL.

Bees are just finishing the best basswood flow I ever saw—three supers to the strong; three per cent loss last winter.

Hull, Ill., July 6. J. L. BLACKETTER.

The white-clover honey crop has been a failure in this locality. There was an abundance of white-clover bloom, but during this period of the best yield, from May 20 to June 20, we had too much wet and cloudy weather.

Nashville, Ill., July 12. S. P. SCHROEDER.

Bees swarmed in May; have nearly filled brood-chamber; nothing in supers yet, even strong colonies not making much honey.

Mackinaw, Ill., July 11. G. S. ALLEN.

Prospects for a honey crop are a failure with me. I might get 50 lbs. from ten stands.

Pittsfield, Ill., July 5. FRED TROUTNER.

Prospects are good for a big honey crop. White clover is in full bloom.

Freeport, Ill., July 5.

A. E. LONG.

IOWA

There seems to be a pretty good honey-flow here at present. There has been much swarming in my yard for a week or ten days.

Leon, Ia., July 4.

EDWIN BEVINS.

We have had the best season so far in several years. Clover gave a big yield, and dandelions and willows gave an immense amount early.

Lake City, Ia., July 10.

IRVING WERNICK.

Honey flow is over; clover is drying up; strong colonies average about 50 lbs. extracted each; but most colonies are weak, due to hard winter and late spring.

Dixon, Iowa, July 8.

E. A. DONEY.

Bees came through the winter in poor condition, and dwindled down badly during April and May. I can not see more than half a crop. Drouth has cut clover and basswood short.

Elkader, Ia., July 22.

HERMAN AHRENS.

KANSAS

Basswood, bee clover, and catnip yielded finely. White clover was a total failure.

Tanganoxie, Kan., July 9.

CARL BARNHART.

KENTUCKY

Honey has been coming in very slowly; flow is about over; it will not exceed one-fourth of a crop.

Richmond, Ky., July 5.

CLIFTON WEAVER.

There has been too much rain for the honey crop. Plants are growing well; and if the season is favorable from now on we may expect a good fall flow of honey. I have failed to get sweet clover to grow.

Livia, Ky., July 4.

HUGH L. LYNN.

The honey crop for Bracken Co. will be about an average one. This is the best flow we ever knew; but there are not enough bees to gather it. The flow is entirely from sweet clover. I have not seen a dozen bees on white clover. I have one colony that will extract at least 250 lbs. of honey.

Bradford, Ky., July 22.

M. A. AULICK.

Spring flow was a failure. Bees are very short of stores now. Some extra strong colonies have stored a little dogfennel honey, very dark and slightly bitter. Worst honey season I ever saw.

Kevil, Ky., July 5.

J. G. NANCE.

MARYLAND

The honey yield is running from 75 to 125 lbs. to the colony.

Aikin, Md., July 5.

J. FORD SEMPERS.

This has been a very good season for bees—much swarming, and the best honey-flow in many years. However, from one-half to two-thirds of the bees died last winter, so that the honey crop will not be large.

Frederick, Md., July 19.

F. D. COVELL.

The honey crop in this section is fully up to the average, or a little better—mostly clover.

Lloyds, Md., July 6.

JOHN THOMPSON.

MASSACHUSETTS

I do not expect to get over a third of a honey crop this year. Bees worked very little on white clover. I may get a little fall honey, as we are having rains now—almost three inches since the 11th of this month.

Swampscott, Mass., July 24.

G. C. GORDON.

The honey crop this season is exceptionally good. Greenfield, Mass., July 18.

L. A. LOVELAND.

MICHIGAN

Up to date, bees are doing finely. My bees wintered well, and swarmed early. I got quite a few natural swarms in May, and some hives have the third super on—very good for this locality. The honey is the whitest I have seen for a long time.

Estey, Mich., July 8.

MIL0 WRIGHT.

The honey crop in Ionia Co. will be very short, owing to the heavy winter loss of more than three-fourths of our bees. Recent rains are favorable for a good late flow.

Ionia, Mich., July 22.

A. H. GUERNSEY.

We have been having fine weather for a flow, and the bees are doing well; basswood is just opening. Many bees winter-killed where not well protected, and not strong at beginning of flow.

Highland, Mich., July 8.

R. D. MILLS.

I had a good flow of clover and basswood here; plenty of wet to make good fall pasture.

Glenwood, Mich., July 18.

E. E. MOTT.

The honey-flow from raspberry and clover is good. Willowherb is out, but yielding slowly; basswood will be in bloom in a few days. Indications point to a good year generally.

Levering, Mich., July 13.

J. D. ROBINSON.

We are having a fine honey flow. White clover and raspberries are abundant; not enough bees to take care of it. I had much trouble with spring dwindling; some lost nearly all their bees.

Wolverine, Mich., July 6.

L. K. FEICK.

MINNESOTA

Swarms seem to be heavy. White clover is everywhere. The prospects are good.

Aitkin, Minn., July 9.

MRS. J. R. DARLING.

My bees are doing fairly well this summer. There was more white clover than there has been for a number of years. I lost half of my bees in the cellar.

Warsaw, Minn., July 22.

R. R. RANDALL.

This is certainly a clover year here in Minnesota, with quite a good flow of honey. Basswood is just coming in bloom; plenty of rain for the former, but too much for the latter.

Minneapolis, Minn., July 12.

E. T. EDSON.

Despite the fact that clover has bloomed more profusely than it has any year since 1908, the crop of honey from that source will be very light. The reason for the scanty secretion of nectar is likely due to lack of age of the clover, which is not rooted as deeply as should be, most of it having its start from seed late last fall. Basswood bloom is extremely light, and but one-fourth of the trees are blooming. The yield from same will be insignificant.

Chatfield, Minn., July 13.

J. J. KADLETZ.

Two-thirds of the white-clover honey is lost owing to two weeks of storms and bad weather. Basswood flow started yesterday; about one-quarter of the bees remain alive after all the drawbacks we have had.

Swanville, Minn., July 17.

JOHN S. LIND.

MISSISSIPPI

Light crop of honey, owing to too much rain.

Foxtrap, Miss., July 13.

J. E. C. WEAVER.

MISSOURI

There is not one pound of white-clover honey here; basswood, small flow; no prospects.

Marceline, Mo., July 6.

IRVING E. LONG.

One hundred per cent of swarming and ten per cent of a honey crop for this part of Missouri.

Fredericktown, Mo., July 22.

JAS. BACKLER.

My bees all died last winter but 12 stands; but very little white clover bloomed this season. Bee clover is fair; will probably get 100 lbs. of comb honey.

Gunn City, Mo., July 8.

JAS. A. ADAMS.

Clover crop is a failure; basswood good, but not much of it; no surplus unless from fall flowers.

Napton, Mo., July 5.

JAS. T. SHACKELFORD.

Prospects for honey are not as good as last year—too much rain, too weak in spring.

Lohman, Mo., July 11.

WM. A. BAUMANN.

We are having the best honey flow here that we have had in years. I have some colonies that have made 175 lbs. of section honey.

Morrisville, Mo., July 20.

H. C. DAY.

The honey crop here will be about half a yield for clover and basswood. Too dry.

Unionville, Mo., July 8.

FRED H. DRURY.

No surplus honey in North Missouri or Southern Iowa; bees will do well to get winter stores.

Unionville, Mo., July 19.

E. F. QUIGLEY.

NEBRASKA

We are having a good flow, but it is getting dry; very few bees to gather it.

Cozad, Neb., July 8.

THOS. ATKINSON.

There has been a good basswood flow. The weather being too dry, the other plants have produced no nectar.

Plattsmouth, Neb., July 9.

J. N. NELSON.

The honey-flow is the best in many years. Every thing seems to secrete well. Some have secured already three supers to the colony.

Humboldt, Neb., July 6.

J. L. GANDY.

The honey prospects in this vicinity are very poor. A severe drouth is setting in, and the only honey-plants are the milkweed and sweet clover. White clover has entirely disappeared; so if a rain does not soon come, only the strong colonies will make enough for winter. No honey for market.

Pawnee City, Neb., July 11.

J. E. BILY.

NEW HAMPSHIRE

The honey season has been fair so far, but would have been much better if it had not been for the cold dry weather in June. We are now having it very warm, with lots of swarming.

Pittsfield, N. H., July 8. HERBERT C. TOWLE.

NEW JERSEY

I report from white clover; 35 colonies produced 3550 lbs.; buckwheat not in bloom yet.

Stanton, N. J., July 22.

T. K. COLE.

Never saw so much white clover here before; but this season is just ended, hastened by drouth and heat.

Lynchhurst, N. J., July 5. C. D. CHENEY.

NEW MEXICO

Outlook for honey in Pecos Valley is very gloomy.

Roswell, N. M., July 5. J. W. E. BASHAM.

NEW YORK

We have the best clover yield in a number of years.

Oswego, N. Y. F. H. CYRENIUS.

The cold heavy rains during fruit-bloom made it impossible for bees to work. It is about a month since we have had any rain, therefore the flowers are dying. Bees swarmed a month late this year (June 15).

Kendall, N. Y., July 9.

T. H. WING.

I expect to have at least six tons of honey from 101 colonies, spring count.

Middleville, N. Y., July 17. F. H. STODDARD.

Nearly all the reports so far received say "Bees doing finely." Mr. Dines was here this morning, and said he took off 2000 lbs. of comb honey yesterday, and is to take off more to-day. He increased from 180 to 316 colonies. I believe the bees are doing nicely up in Jefferson and St. Lawrence counties, but have had very few reports from there.

Syracuse, N. Y., July 24. F. A. SALISBURY.

We have been getting very favorable reports, and it looks as though there would be a very good crop of clover and basswood. For the last week or two business has increased, which would indicate that beekeepers must be getting honey.

New York City, July 2. NEW YORK BRANCH.

The honey crop here, nine miles south of Syracuse, will be the best in years. There was much white clover and basswood, and it looks like lots of sweet clover.

Fayetteville, N. Y.

E. J. BENNETT.

The honey crop is a failure here. First, very wet and cold; then protracted drouth. Surplus is scarce.

Russell, N. Y., July 15.

HYLE CRAWFORD.

Tremendous flow since June 20—still on. Basswood is just starting; looks fine. Hives are five to seven stories high. Great is ailsie.

Randolph, N. Y., July 5.

GEO. SHIBER.

The long-continued drouth has caused a falling-off in the honey crop in this section; but bees generally are doing well—plenty of early clover honey gathered; lots of absconding swarms; terrible loss in spring dwindling in this section.

Clifton Park, N. Y., July 22. A. L. DOWS.

NORTH CAROLINA

In Western North Carolina the crop will be above the average. Poplar and basswood give an extra good yield.

Cane River, N. C., July 23. W. S. EDWARDS.

The season is fairly good; average about 50 lbs. comb and 11 extracted.

Chadbourn, N. C., July 9.

F. R. JORDAN.

OHIO

Fair prospects for a honey crop here.

Spargursville, O., July 7.

J. R. COOPER.

Bees are carrying in rapidly now, and have already stored a good amount; and if we have rain to prolong the life of the clover the yield promises to be above the average.

Barnesville, O., July 9.

T. D. EVANS.

We are having here in this vicinity one of the best honey-flows on record for this season of the year.

Toledo, O., June 14.

S. J. GRIGGS & Co.

We had a rich honey-flow from May 12 to 28, from locust and poplar. It caused the bees to work in the supers, and we had home-grown honey on the market June 8—very unusual for this locality. Then there was a dearth for two weeks; but since June 16 honey has been coming in freely, mostly from white and sweet clover.

Cincinnati, O., July 10.

REV. E. R. WAGNER.

I am getting a fine crop of mainly snow-white comb honey. Swarming is not a side issue with our bees, but we are getting it under ordinary control at this date. I am having no trouble in disposing of honey in case lots at 20 cts. a pound.

GLENWOOD BEARD.

Magnetic Springs, O., July 1.

The honey flow is the best in ten years—good rain and plenty of white clover.

Lima, Ohio, July 18.

J. A. MOONEY.

Best pasture in ten years; troubled much with swarming, but a fine crop of honey already secured.

Columbiana, O., July 8.

D. M. MCGAFFICK.

In this section the honey crop will be almost an entire failure.

Jerry City, O., July 9.

S. C. REARICK.

The drouth in May and June was unprecedented. Not much honey here this season.

Bloomdale, O., July 6.

M. N. SIMON.

Clover honey was a short crop. Basswood is good—just coming to a close; average about two supers to a colony—70 lbs.

Delphos, O., July 15.

J. H. ALLEMIER.

I believe I have never seen a better honey-flow locally than is on at present. I was surprised in looking over the bees to-day. Bees that I thought had room enough had to have additional supers.

Zanesville, O., July 6.

E. W. PEIRCE.

Reports from bees in this part are not very encouraging—plenty of bees, hives heavy, but few supers on, but bees do not go up into them at all.

Hebron, O., July 11.

MRS. FRANK MCGLADE.

We will secure a good crop of the finest white honey in this section, close to an average of 75 sections per colony, and gathered rapidly, making a predominance of fancy grade.

Beaumont, O., July 12.

J. C. ATKINSON.

ONTARIO

A good colony, but not the best, gained 18 lbs. on the scale yesterday. We should have at least 40,000 lbs., white crop.

Nelles Corners, Ont., July 12.

R. & H.

Bumper crop, bumper quality; bumper swarms; bumper clover flow—six weeks. Beat that if you can.

Toronto, Ont., July 19.

CHAS. E. HOPPER.

PENNSYLVANIA

The crop report for my section of the State shows one of the most wonderful honey-flows that it has ever been my experience to witness.

Philadelphia, Pa., July 20.

GEO. M. STEELE.

My bees are doing finely this year. Some have filled two supers already.

Alleghans, Pa., July 18.

J. A. SPACHT.

This is certainly a great year for honey. The little fellows will pay off the back debt; 108 lbs. from one colony, comb honey.

Washington, Pa., July 8.

J. C. MCNEELY.

It is a very good white-clover yield of honey this year.

Corydon, Pa., July 16.

GEO. WHITCOMB.

Quite a number of bees froze last winter, and some of the remaining are very weak, so they were slow gathering up, but are doing very well now.

McVeytown, Pa., July 10.

J. H. BYLER.

We are having a good honey yield this season all through this section of the county.

New Holland, Pa., July 8.

H. W. MARTIN.

The honey crop will be short in this locality from present indications. Clover is about over, and less than half the bees are at work in supers. I can not speak except from this immediate locality.

Linden, Pa., July 8.

DAVID L. YOUNG.

The yield of white-clover honey is above the average, in both quantity and quality; all over by July 1, owing to drouth the last three weeks of the honey season.

Doylestown, Pa., July 20.

T. C. POTTER.

This has been the poorest year so far for many a year—no clover honey yet, and we don't expect any.

Dayton, Pa., July 25.

J. L. RIMER.

Owing to six frosts in June and one July 1, then the severe drouth from June 20 to July 10, the red raspberry and white clover crop of honey is only a fair one. Bees were too weak to gather a good crop. Good rains yesterday and to-day give us hopes of a good crop of basswood (just opening).

MRS. AFARETTA BONSER.

Costello, Pa., July 11.

QUEBEC

Clover is at its height, and the bees are booming, as the weather is ideal for the secretion of honey. The season bids fair for a bumper crop in this province.

Knowlton, Que., July 5.

J. RAYMOND BALL.

TENNESSEE

This is an exceptionally good honey season here. White clover produced about 36 lbs. per colony. Basswood is now in bloom, and bees are booming.

Harms, Tenn., July 8.

J. A. BEARDEN.

The indications here for a good honey crop are not as they were two weeks ago; however, I think the crop will be very good.

Lebanon, Tenn., July 22.

ROBT. HUDSON.

We have just harvested the best crop of honey I have ever known; fine prospect for a fall flow.

Morristown, Tenn., July 19.

W. A. SPANGLER.

TEXAS

The honey crop in Southwest Texas this season will be an entire failure. In fact, if we do not have some kind of honey flow this fall I am afraid most of the bees will have to be fed.

Jourdanton, Tex., July 10.

M. A. OSBURN.

UTAH

We have a poor prospect for a honey crop this season. The alfalfa weevil got all the first crop of lucerne. Bees wintered poorly.

Hooper, Utah, July 10.

SOPHUS OLSEN.

VERMONT

I have been crowded with my bees this summer—seven colonies. I have taken from them 150 lbs. of comb honey.

Albany, Vt., July 13.

J. M. CARTER.

Bees were gathering honey rapidly from clover, but were cut off by drouth. Basswood is yet to come. Crop is uncertain—one-third or more expected.

Shoreham, Vt., July 8.

R. H. HOLMES.

VIRGINIA

Trade indications point to the best honey-flow for years—mostly of white clover of fine quality.

Staunton, Va., July 5.

W. E. TRIBBETT.

The flow has been good up to this time, and prospects are for a better crop than usual this year.

New Glasgow, Va., July 10.

CHAS. T. THOMPSON.

The prospect is very bright indeed for a good crop of honey through the southwestern portion of Virginia. In this particular section it is the best we have had for three years.

Troutville, Va., July 5.

C. E. LAYMAN.

WEST VIRGINIA

Prospects are fine for a good crop of honey. Most colonies have three supers pretty well filled.

Maud, W. V., July 4.

FRANK P. COOK.

My honey crop this year is 120 sections per colony, spring count. Honey is finished the nicest I ever saw.

Kerens, W. Va., July 23.

C. R. MILLER.

We have an unusually heavy flow of nectar. This, together with the fact that bees wintered better than usual, gives the largest yield for years.

Miami, W. Va., July 22.

JOHN D. THOMAS.

Honey flow commenced June 25, lasting to July 10. From 47 colonies I shall get 1600 pounds of comb honey, being an average yield for this locality. The sources of honey are sumac, cottonweed, chestnut, and white clover.

Pennsboro, W. Va., July 22.

WILSON & LUZADER.

WASHINGTON

Bees bred up well with large brood-chambers; first flow good, then three weeks cloudy weather. Insects have destroyed willowherb, but it may bloom later; clover is not yet past. Little honey taken; prospects poor; a fair amount of swarming. I do not expect any more honey.

Yacolt, Wash., July 15.

H. E. HARRINGTON.

WISCONSIN

No surplus honey in Dane Co.; 90 per cent of the bees died last winter from dysentery and continued cold weather.

Mt. Horeb, Wis., July 10.

L. J. BERGH.

The clover crop is good; weather favorable; fair crop of honey secured. As soon as basswood commenced to bloom, weather turned unfavorable. There will be very little basswood honey in this locality this year. White honey crop will be short here.

Rock Elm, Wis., July 22.

B. J. THOMPSON.

Crop outlook is good here. Bees are working finely. We have had two rains here, which saved our crop.

Augusta, Wis., July 5.

GUS DITTMER CO.

No clover this year in this locality. I just took a trip around the outskirts of Milwaukee, and I notice that even the sweet clover seems to have died out where other years there were miles of it. Basswood is promising, but there is not enough of it, and but few bees left to gather what there is.

Menomonee Falls, Wis., July 8.

R. RODENBERGER.

[In the way of a general summary we may say that the indications so far point to the largest crop of clover honey in years—at least we do not remember the time in over a decade when there were so many favorable reports. As before stated, had it not been for winter losses the large yield of clover would have a strong tendency to weaken prices on Western alfalfa and California sage. However, we do not expect to see any great reduction, because there are a number of sections in the West where alfalfa has not given a large yield. The season in New Mexico and California generally has not been up to the average; but until we can get more definite reports of what the clover crop *has been* in the East, it will be hard to predict at this time what the market will be. We have been informed that buyers are in the West trying to corral the crop. If they succeed in getting hold of the most of it, and hold prices up, the apparently large yield of clover will not weaken the general market.

Texas and Florida still report a poor season.

If one will go over these reports carefully he will find one section in the State where the season has been a failure, and another section of the same State where there has been a heavy yield. The shortage in one place and the abundance in another will just about hold things even, with the result that clover honey (for which there is always a good demand) should not drop materially in price if at all. In a general way it will be observed that the clover crop has been better in the more eastern States. In Indiana and Illinois the season has been a little off.—Ed.]



Camp outfit, standing by a mammoth blackberry bush, Willamette Valley, Oregon.

A "PROSPECTING" TRIP THROUGH OREGON

BY E. F. ATWATER

Early in October, 1909, our bees being ready for winter, and the greater part of our crop marketed, the writer and Mr. Earle Dilatush took the train to The Dalles, Oregon, and from there to Portland by steamer on the Columbia River, one of the most beautiful scenic trips in the West.

At Portland we purchased a camp wagon and a team, and, outfitting with a liberal supply of fruits and nuts, and other "raw foods," we started south through the wonderfully beautiful Willamette Valley.

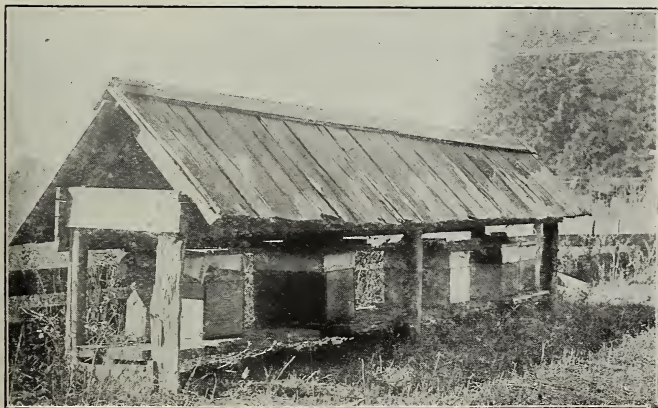
With two cameras and hundreds of plates we expected to have an interesting

pictorial record of our trip, with a special eye to any thing connected with bees and beekeeping.

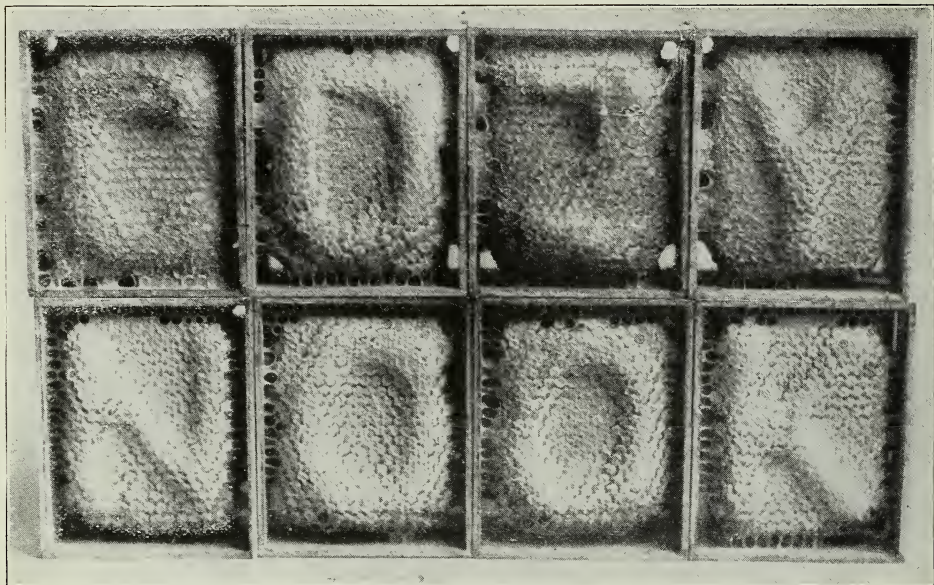
Perhaps the season had been unusually unfavorable through the Willamette Valley; but the honey that we purchased or tasted along the way was probably the vilest concoction that a bee was ever forced by dire necessity to store in waxen cells. Through the whole length of that beautiful valley, not one apiary, of any considerable size, was seen or heard of, though at one place we found the young lady of the house quite up to date, and purchased two sections of so-called "maple honey," of light greenish color and delicious aroma; but, alas! to my taste at least, it was of very inferior flavor.

The little shed apiary here illustrated is, perhaps, a typical Willamette Valley beeyard. The sheds roofed with old split cedar shakes serve to protect the hives from the excessive winter rainfall.

The hives are about like an eight-frame Jumbo of extra depth, taking the regular eight-frame super, while their occupants are usually of the large brown German type, or hybrids. At Woodburn, inquiry for C. T. Bon-



A shed apiary, typical of those found in the Willamette Valley, Oregon.



A sample of how bees can be made to spell. See Mr. Arthur's letter.

ney, at one time a contributor to the *Review*, revealed that he had removed to Arizona.

Passing over minor ranges of mountains, rich with fern and vine, we arrived in the Rogue River Valley, where alfalfa is common, and great orchards ship trainloads of the finest fruits to the world's markets.

At Central Point we found an up-to-date beekeeper and rancher, and here replenished our supply of alfalfa honey.

Inquiry at Medford revealed the presence in that community of another beekeeper having 200 or more colonies; but as we were unable to find him we left between showers for Ashland and the summit of the Siskiyou Mountains. We waited two days at the base of the mountains for the rain to cease, and then made the climb without difficulty. Down long grades, through green ravines and valleys, here and there a little field of alfalfa brightened the eyes of the travelers until, in Siskiyou Co., California, we pulled up one night at a farmhouse where about 100 two or three story hives adorned the landscape. We spent the night with good Mr. and Mrs. Brown, discussing bees and locations, pictures and climate, until a late hour.

Near Kalamathon we found a dilapidated apiary where once some old bee hermit held forth, but now far on the road to extinction.

At Chico, where, a few years before, the government had stationed John M. Rankin,

with a government experiment apiary, we expected to revel in good bee talk again; but, no. A long walk to the government gardens showed us that the bees had been sold and the work abandoned.

At Nicolaus, seedy and forlorn, the home of the carpet grass, formerly the home of the Tyler Brothers, bee kings of Nevada and California, we met a beekeeper of some 500 colonies who was about as communicative as a clam; so, after sampling the honey of the region at the corner store, we went on our way.

We ended our trip at Sacramento, as the winter rains made travel any thing but pleasant.

As a whole it seemed to us that the vast territory from Portland to Sacramento was about as poor bee-territory as could be located on the map, with here and there a little oasis where fair crops may be had.

After a few days at Sacramento I took the train for Idaho, while Mr. Dilatush went on by train to the sage and orange apiaries of the South.

Meridian, Idaho, Jan. 25.

[In 1901 we went over that same territory, and our conclusion was that it was by no means the equal of the central part of California nor yet the southern. We are not quite prepared to believe, however, that it is poor territory, for we believe that, when population increases, some fine bee-ranges will be found.—Ed.]

BEES THAT CAN SPELL

BY J. WARREN ARTHUR

Under separate cover I am sending a photo of the honey that I exhibited at our fair last fall. Some two or more years ago you spoke of bees robbing from carloads of honey shipped to you, and you said it seemed as if the bees could read the words "Big Four" on the car. Ours can spell. We call our home "Cozy Nook," and the bees spelled it out without trouble when I gave them the copy. The C and Z were slightly crushed, and were bleeding, which shows somewhat in the photo. The Z was not capped as white and pretty as some of the others.

Springfield, O., March 6.

[There are beekeepers who can make their bees "spell" if they only know how. Perhaps our correspondent will be willing to explain how he did it. In the meantime we should be pleased to receive short articles from others on how the trick is performed.—Ed.]

A FAMILY OF EIGHT THAT EATS FIVE POUNDS OF HONEY A DAY

BY DAVID E. DOBBS

I believe I am the pioneer beekeeper of Koochiching Co., Minn., which is about as far north as one can live in the United States. I was born in Brown Co., Ind., in 1871, and became interested in bees in 1881.

My father had kept bees for years, but in box hives. At this age I induced him to buy some Italian bees and movable-frame hives. He told me he expected me to take care of the bees from that time on, so you may be sure that pleased me. I was the youngest of five boys of my father's family. I was married when 25 years old, and now have five boys and one girl.

I kept bees continuously until 1902, when my family and I started for Northern Minnesota, where we took up a homestead in the wilderness, where there were lots of moose, deer, wolves, and mosquitoes to shoot of which I had my share. We had lots of hardships in this country; but in 1908 I bought a colony of bees of F. A. Gray, of Redwood Falls, Minn. I received them May 12, after a confinement of about 15 days. That year I increased them to four colonies and took 200 lbs. of honey, and wintered them without loss. In 1909 I increased to 17 full colonies, but took only 125 lbs. of honey, and had to feed 300 of sugar. I again wintered them without loss, so that in 1910 I commenced with the 17 and took 3000 lbs. of extracted honey, or over 176 lbs. per colony, and increased to 34 colonies. In 1911 I commenced with 34 colonies and took 7000 lbs. of honey, of which 6000 was extracted and 1000 comb honey—an average of over 200 lbs. per colony, and increased to 69 colonies.

My honey that I have sold has averaged me 14 cts. per lb. We believe in practicing what we preach, as we use about 5 lbs. of



A steam melting and rendering outfit for old combs. See next page.



David E. Dolbs and his family of "consumers" who, besides helping to produce honey, eat five pounds of it a day.

honey per day, and have it at every meal.
Indus, Minn., Feb. 24.

[Five pounds a day! That comes pretty near if not quite up to the high record of daily family consumption of honey. We should like to inquire if there is another family that can beat it. The families that are large consumers of honey appear to be healthy people. Aside from the sweets in fruit, honey is the only sweet available to man without special treatment. We know that the sugars in fruits are healthful and nourishing. In the same way we know that honey is equally so; but because it is more concentrated, a less quantity can be taken at a time.—Ed.]

A STEAM-BOILER OWNED BY THREE BEE-KEEPERS FOR RENDERING OLD COMBS

BY P. H. BALES

I am sending you a picture of our wax-melting outfit which has given us such good satisfaction that it may be of interest to others. Two of my neighbor beekeepers went in with me so the expense was not much for any one of us.

The outfit consists of a steam-boiler, a steam reservoir, or tank, and a Root wax-press. The tank is 6 ft. long, 20 in. wide, and 22 in. deep, with a screen 11 in. from the top to hold the old combs that are melted by steam from the pipe just underneath,

which is perforated the full length of the tank. The steam is turned into this pipe, and it strikes the screen from below. There is room for the melted wax below the pipe, and a faucet in the bottom of the tank for drawing it off. The lid fits tight.

The wax-press is attached to the boiler; and any amount of steam can be turned in at will. We now have the whole outfit in a tight room to keep out bees.

Hanford, Cal., May 3.

[There is nothing that can be compared to steam for heating water or for cleaning wax or propolis off from articles used in the apiary. Steam can not heat water enough to do any damage to wax; and where a beekeeper can have access to it he is much more fortunate than those who have to depend on stoves or outdoor arches. Usually it is not practicable for the beekeeper to own his own boiler, as the amount of use he can get out of it would not warrant the first cost. Small boilers can usually be obtained at an expense of from fifty to sixty dollars.—Ed.]

PROOF THAT BEES THIN DOWN THE BASE OF COMB FOUNDATION

BY JOSEPH H. PETERSON

I have often seen the statement that bees seldom, or never thin down the bases of cells in foundation; but of late in examin-

ing combs I have noticed some very marked examples that seem to contradict that statement. I have had my partner, Mr. A. H. Wilcox, take a picture of one by transmitted light, which shows, although somewhat imperfectly, the very noticeable difference mentioned above.

At the lower left-hand corner, where the wire is fastened, is a three-cornered patch of the original foundation. Next is a smaller patch of partly drawn and thinned-base foundation. The rest of the picture shows varying degrees of drawn comb, all of which has the base reduced to a very thin transparent condition. At the upper right-hand corner the cells are deep and slanting, so that the camera could not look directly into them, as was the case in the rest of the picture.

The foundation used in this case was home made, running about $6\frac{1}{2}$ sheets to the pound.

Ogden, Utah, March 11.

[Your last sentence explains why your bees thinned down the bases of the foundation. Six and a half sheets to the pound virtually makes what we call "heavy brood" foundation. When the base is thick, as it is in such sheets, bees will, as a rule, thin it down; but when ordinary super or extra-thin super foundation is used, the base is so

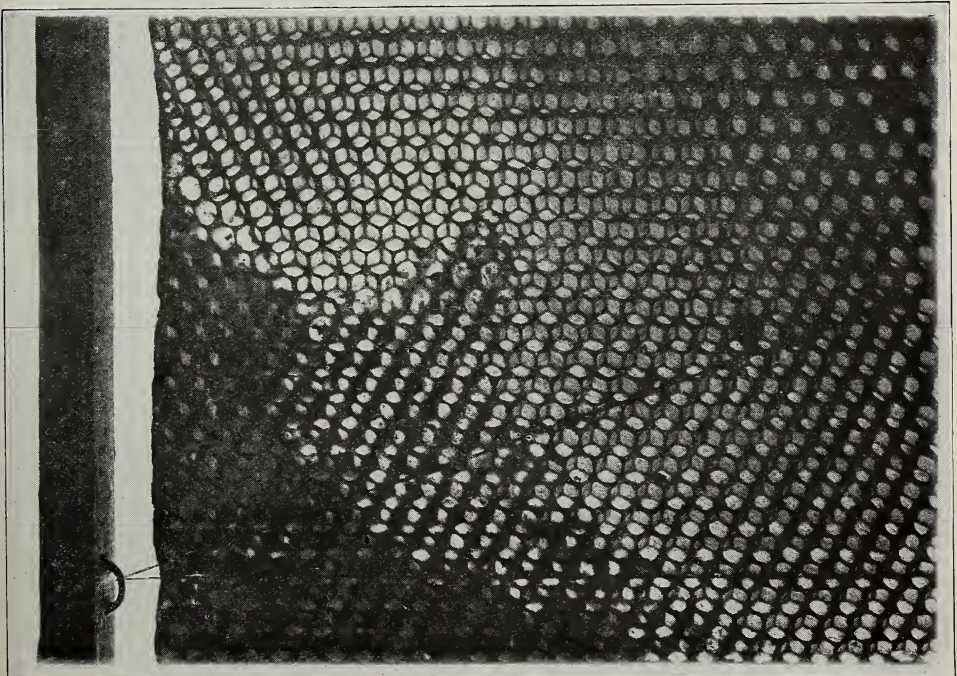
near the thinness that we find in natural comb that they generally leave it without alteration. Mr. E. B. Weed, the inventor of the Weed process foundation and the machinery for making it, conducted numerous experiments years ago, the result of which showed that, when the base of foundation is almost as thin as the base of natural comb, they will not alter it; but, no matter how thick the *walls* of heavy foundation are, they will thin them down to the natural thickness—3-1000 of an inch.—Ed.]

BEEKEEPING FOR WOMEN

BY AVALVE C. ROBBINS

Sister Beals, of Lewiston, Me., has broken the ice. I too have three nice colonies of bees. I buy my inside fixings by the hundred in flat, and so have the same enjoyment of pounding the nails (not fingers, for all women do not pound their fingers).

I had been looking for some time for a business whereby I could be at home and attend to my wifely duties and still feel as though I were earning some money. So my husband finally invested about \$33.00 for me, and I find beekeeping just the thing. I will succeed or "bust."



The lower left-hand corner shows the original foundation. The lighter portions show how the bees thinned down the base.

I have hived two swarms this week, following expert Alpaugh's method with the dishpan and sheet, with very good success indeed—no stings at all, and five hives in stock.

Why don't more women keep bees?

You know they say a woman is determined to have the last word. It is my opinion that, if more women would show their determination in beekeeping, there would be more peace and harmony in our world.

South Berwick, Me.

SEVEN "OUTDOOR" COMBS, 15 INCHES WIDE AND 2½ FEET LONG

BY HARRY HEWITT

I commenced keeping bees only a year ago, taking up wild swarms, which seem to be quite plentiful in this section. I found 19 bee-trees last summer.

The other day I made a unique find which may interest you. I found bees feeding on huckleberry blooms, and I "lined" them 1½ miles before finding the swarm. They have made their home among the top branches of a small oak, about ten feet from the ground. The combs, quite exposed, are about 2½ feet long by 14 or 15 inches wide, and the bunch is about seven combs thick. I should judge the nest to be quite a year old.

Apopka, Fla., Jan. 29.



"Outdoor" colony in Florida that have lived in these exposed combs over a year.

REPORT OF THE SEASON AROUND CINCINNATI

How the Large Acraeages of Sweet Clover were Made Available for the Bees

BY HENRY REDDERT

On page 430, July 15, I notice the honey report up to July 9. No report being included from this district I will try to give as accurate a report as possible.

Up to date (July 18) sweet and white clover are still in full bloom. It rained here every day this month except one. Clover began blooming about June 15, and on June 20 it was in full bloom. The bees have worked every day since; and, according to present indications, clover will bloom this entire month and into August. New bloom is forming as fast as the old goes to seed. Fruit bloom, locust, dandelion, Chinese aster, all were good forerunners of the clover yield; and beekeepers having strong colonies this spring will harvest a heavy crop.

Under the above conditions bees built up strong, and swarmed heavily at the beginning of the season. Mine began swarming the last week in May, and kept it up two weeks in June. All the swarms will give a surplus. Besides, the parent colonies built up strong after swarming, assuring a heavy crop. All the beekeepers I came in contact with inform me the same conditions prevail in their apiaries. However, there are some heavy winter losses, due to the scant honey crop of last season. One man lost 30 colonies out of 90; another, 37 out of 40, having but 3 left. This last named may also have had disease; but I can not verify it, as I have the report second hand. We all lost more or less; but the above named are among the heaviest losses.

There are many people in the bee business with very little theoretical experience in the beginning of their career, making success impossible, and dangerous to their neighbors. These, of course, will have no heavy yield to report—probably none; but, taken as a whole, we have a good honey year for those with good healthy colonies.

Sweet clover has had a bounce year. All the hills and valleys are covered. Some people cut it down (but not many) about June 10; but I notice that some clover is now in full bloom. We petitioned our Mayor, Henry T. Hunt, to request the council to see to it that the sweet clover be saved when the weeds were cut. Before he sent our letter to the council, he gave it to the reporters of the daily papers. The next day it appeared in every paper, Eng-



Warner's flat covers roofed with painted tin.

FLAT TIN COVERS

Their Use in New York

BY L. G. WARNER.

Our apiaries, two in number, consisting of 301 hives at present, are situated in the pleasant and fertile Schoharie Valley, about $1\frac{1}{2}$ miles from the village of Middleburgh, N. Y. Our honey sources consist of the numerous wild plants and trees usually found in a hilly country of this latitude—some fruit trees for spring brood-rearing; clovers — alsike,

lish and German alike, and I noticed in the suburbs where people cut their lawns short at intervals heretofore, most of them are now in full bloom. "A stitch in time saves nine;" also saves the honey for the bees. However, tons of honey are going to waste for lack of bees.

The beekeepers of Hamilton and Butler counties are making efforts to make a display of bees, honey, wax, and bee supplies at their respective county fairs this fall. The Hamilton County Fair will be held at the Carthage fairgrounds, August 14 to 17. Our association will hold a special meeting for this purpose the last Monday in July. All members are invited to take part in this, our first attempt at public display of bees and their products. The meeting is to be held at the headquarters, 2146 Central Ave., Cincinnati, O., at 7:45 P.M.

[We will explain to our readers that Mr. Henry Reddert is a "live wire" on the subject of bees—and, moreover, he seems to have in mind the greatest good to the greatest number. We believe it is largely through his influence that sweet clover has been made available to the bees in and about Cincinnati. Of course, he has a beekeepers' society back of him, and there is the secret. City fathers and legislators will listen to a request from an *organized body* of men when they will utterly ignore the request of an individual. What the Hamilton Co. Beekeepers' Association has been able to accomplish, others should be able to do. It only needs one "live wire" to stir up the rest to action. Does that mean you, dear reader; and are you looking after your county fair?—Ed.]

white, and sweet, in their season (when it is favorable), and buckwheat for a fall crop.

The acreage of buckwheat some years is very satisfactory, depending on the amount sown by the surrounding farmers. The past year, weather conditions were unfavorable, so all we could do was to look at the bloom, and—*wish*. Goldenrod and wild asters sometimes provide a late sustenance, but can not be relied on.

We produce mostly comb honey, using a hive taking eight frames and dummy. The hive is $18\frac{1}{4}$ inches long, $14\frac{1}{2}$ inches wide, and $11\frac{1}{2}$ deep. Our hive-covers, as shown in the photograph, are flat, having a two-inch rim all around the under side to prevent rain from driving in; also to prevent their being easily blown off by the wind. The entire top and about half of the width of the rim is covered with a sheet of well-painted tin. All of our hives and covers are painted white, as we think they last enough longer when painted to pay, regardless of the improvement in looks. This cover has been adopted after years of experiment with box tops, flat boards, covers with end strips, and others.

In connection with these covers we use an oilcloth or other heavy bagging cloth over the frames or boxes to prevent the cover from being glued down with propolis, this facilitating handling the bees without needless jarring when opening the hives.

Middleburgh, N. Y., Feb. 8.

[The style of telescoping covers shown in the illustration with a thin super cover beneath are becoming more popular.—Ed.]

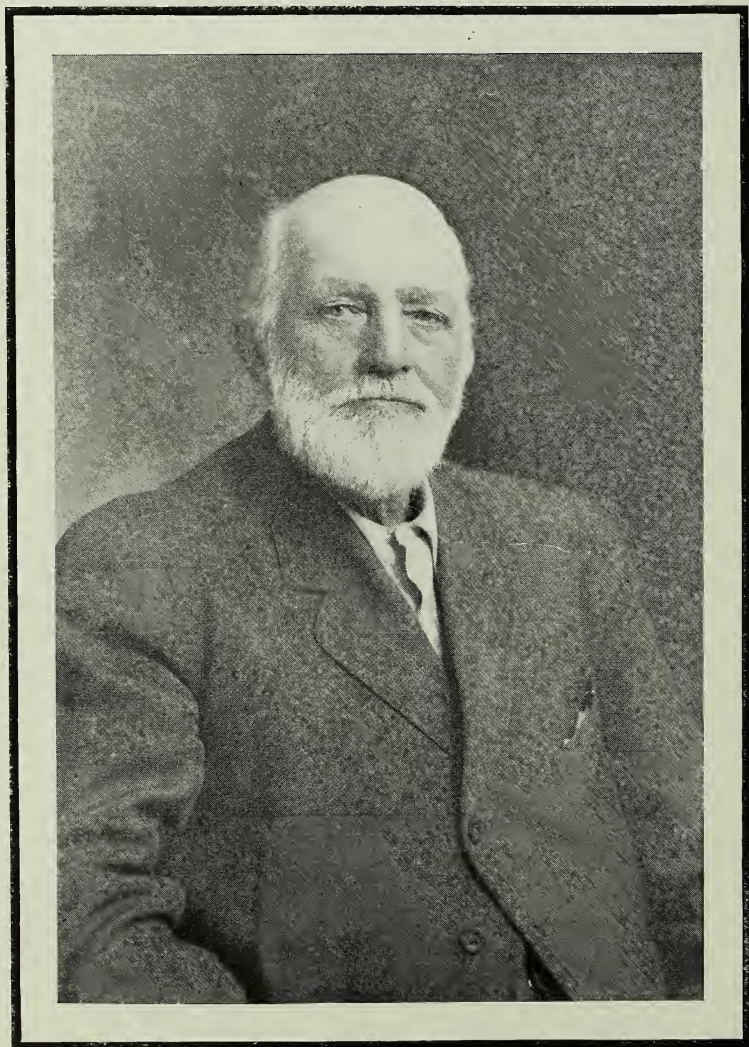
A NUMBERED STAKE IN FRONT OF EVERY GROUP OF THREE HIVES

BY J. W. SOUTHWOOD

Louis H. Scholl, in the May 15th issue, calls up the question of hive numbering. It may be true that what is satisfactory to one may not be to another. Yet what is satisfactory to one may be of benefit to others, even if not entirely satisfactory. With this thought in view I will give my method of numbering hives, which has proven, after several years' test, the most

satisfactory of any that I have tried, and I have tried several others.

My hive-stands are a little more than six feet long, and hold three hives, one at each end and one in the middle, all facing the south. About two or more feet in front of the middle hive of each group of three is placed a stake which is painted white. These stakes contain the numbers in black or blue figures. In order that the figures may be larger, they are arranged so as to read vertically if more than a single figure is used to express the number of the colony.



J. G. Corey, of Santa Paula, Cal., in his 84th year—the man who, years ago, carried a colony of bees over 100 miles across the mountains, making a part of the trip on snowshoes. See department Our Homes, by A. I. Root.

These stakes are square at the top, and are an inch and a half or more in diameter; and when set in the ground they project ten or more inches above the ground. I commence at the northwest corner and number across one row of groups, and then go back to the west and number across another row, just as one would do in reading a page. On the west side of the first stake is No. 1; on both the north and south side is No. 2; and on the east side is No. 3, and so on with each group. With this arrangement a person soon learns the location each number occupies. The number designating the middle hive of each group contains the number of the colony, both on the side next to the hive and also on the opposite side of the stake. By this arrangement a person standing in any position in the apiary can see one or more of the numbers of the group, or a group next to the group which it is desired to notice. If desired, the stakes can easily be moved while mowing the aisle, and then set back in their places.

I purchased a blank book of sufficient size, and numbered the pages up to the number of colonies in the apiary. Then each year I make the date of the year and then make a record of each colony, whatever is desired. When clipping queens during apple bloom I note whether the queen is old or young, and the condition of the colony as to the strength and amount of stores. I also record when special queens are given, etc. As I hive the swarm, when permitted to swarm, on the old stand, or if I use the Alexander method, somewhat modified, of making increase, the old queen always remains on the old stand unless, for some other purpose, she is changed; then a record of the change is made. With this method I can readily refer to any number desired, both in the book and also in the apiary.

When several colonies alike are requiring attention I place the numbers on a little board and put it in my tool-box, where it is convenient.

Huntington, Ind.

[Like Mr. Southwood we favor putting hive numbers on stakes rather than on the hives. At our home yard, a substantial hard-wood stake with cross-arms on it supports the grapevine which stands just in the rear of each hive. Our hive numbers will be found about two feet from the ground, tacked to the north side. The advantage of this arrangement is that the hive may be shifted about, leaving the numbers right where they should be found. When numbers are attached to hives, and it becomes necessary to move any particu-

lar hive, the number tag must be removed or else it causes endless confusion in trying to find that particular hive number out of its regular position. When the apiarist goes through his yard he can make his records on a card index.

At the present time, however, we are using a scheme of wooden tablets for records on the hives. But we still use numbers to designate places where certain queens, brood, or other material may be found. We will illustrate this scheme a little later.

One side of the wooden tablet is painted red, and the other white. The latter holds the record in leadpencil. When the former is turned outward it shows that the colony needs attention. The wooden tablets are held in place on the side of the hive by means of brass spring clips.—Ed.]

HIVE FOR USE DURING A TIME WHEN ROBBERERS ARE BAD

A Bee-cage Designed to Fit the Top of the Hive

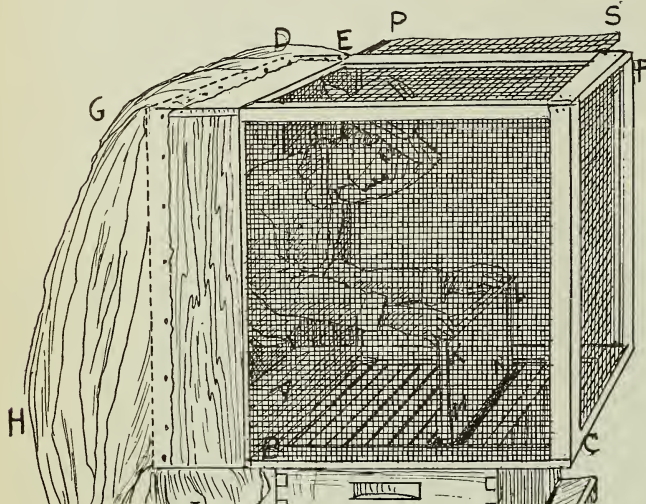
BY LANE S. LEONARD

Every beeman knows what it is to open hives and work with bees when honey is scarce in the field, and surrounding bees eager for robbing; yet various things often make this unavoidable. Where hives stand on benches or on the side of a hill, or close together, a bee-tent is out of the question. Careful management at such times often deluded me into the idea that, in spite of the annoying robbers, I had little or no loss by them; yet by the next morning many (sometimes very many) dead bees would lie in front of the hives where I had worked.

To overcome the trouble I constructed what, for the want of a better name, I call a bee-cage. It is about 3 ft. high, and a little over 2 ft. wide. The operator, who stands at the back of the cage, is shielded by burlap tacked on the rear of the top and rear edges of the sides and bottom. It is designed to rest on top of the hive or on the super after the hive-cover is removed. The bottom of the cage is provided with an opening to match the opening of the hive, so that, when the cage rests on top of the hive, the opening in the bottom fits snug and even with that of the hive; and, being wider than the hive, it affords sufficient room and unobstructed access to the frames, and enables one to handle them at will. A bee-escape is arranged at the top so that any bees that crawl up the screen will find their way out.

The cage being made of light half-inch boards, with wire gauze for the front and sides, is easily handled, especially after a

little practice in handling it; but as it is to be used in troublous times a person can not be too careful not to have the hive entrance unduly large and not to puff smoke on the guards at the entrance, for they may soon be needed there. If there is an inside as well as an outside cover, so much the better, assuming there is only one cover.



We have the smoker ready, and also a clean piece of cloth or burlap to lay over the open hive as soon as the cover is removed; then after the cage is set on top of that, we first tip one end of the cage up to remove that end inwardly, and then tip the other end; then take the cloth away, and not a bee will get in. This done, it is a pleasure to work with the colony or lift out frames. A little puff of smoke on the bees in the hive subdues them. The roof of the cage gives a very agreeable shade, and in cool weather the cage is a protection against chilling the unsealed brood.

[At certain seasons of the year, especially right after a heavy flow of honey, and when all the nectar supply has ceased, robbers are particularly troublesome. At such times we find a cage very convenient, and at times indispensable. The form of cage that we use, however, is made of a light framework of $\frac{7}{8}$ -square strips covered with cheese-cloth. This material is not only cheaper but better than mosquito-netting or even wire cloth. If it becomes torn it can be very cheaply replaced. But why is cheese-cloth better than mosquito-netting? Mainly because it cuts off from the robber bees hovering on the outside all view of the operations inside. This, we have dis-

covered of late years, is very important; for when the bees can see the combs exposed they are much more inclined to hover around the cage than when the vision is cut off by cheese-cloth.

The tops of our cages have no cover of any sort, and hence no bee-escape is needed. The average beekeeper would suppose that a top would be indispensable to keep out the robbers; but as a matter of fact they will not dive down; and if they hover around at all it will be about two feet from the ground, or about the level of the top of the hive. The bees that fly up when the hive is being operated, readily escape; but no outside bees will dive down into the inclosure where the operator is quietly at work free from molestation. The cages that we use are 5 feet high, 3 feet 6 inches wide, and 4 feet long. Two feet from the bottom are two side rails, $\frac{7}{8}$ square, which

serve as handles to enable the operator to lift the cage off the ground, walk over to another hive, and "squat" over it.

We have never tried an arrangement like the one here shown; but we would consider it more difficult to adjust over the top of a hive than one of a slightly larger size and lighter construction—one that could be set over the entire hive and still leave room for the operator. One objection to the Leonard cage is that it would fit only one style of hive. Where double and single walled hives are used, as in our apiary, especially if some of them were eight frame and some ten, it would not be practicable. Then it occurs to us that the curtain work at the back of the operator would have to fit closely around the ground and close to the hive to prevent robbers from getting in. The cage that we have described rests on the ground, and the grass makes it practically impossible for robbers to get under. As a matter of fact, they are not much inclined to crawl through obstructions.—Ed.]

There has just come from the press a new bee book entitled "The Tunisian Beekeeper," by J. Georges, Chevalier du Merite Agricole, an officer of the Nicham Ifitihar, President of the Apicultural Society of Tunis, and teacher at that place. The price of the book is 60 cts.; by mail, 65 cts.; 12 copies for \$5.62. Send remittances to Mr. J. Georges, 150 rue Bab Souika, Tunis, Africa.

Heads of Grain from Different Fields

Laying Workers and How to Treat Them

One year ago in June I purchased a two-frame nucleus. This spring I clipped the queen. About the 10th of June they swarmed, but we did not see them till they were going back in the hive, nor did we see the queen on the ground. The next day I found the queen at the entrance dead. I do not know whether she did not get back, or they killed her and carried her out.

Ten days after a large swarm came out and clustered I set a new hive near them with full sheets of foundation, and they rushed in. I then set the old hive aside and put the new swarm in their place.

Ten days after I looked at them they had drawn out all the comb and stored considerable honey on the outside of the frames. I have not found any brood in either hive since they swarmed.

About the 20th of June I bought two queens—one for each hive. The bees were about 30 hours in eating out and releasing the queens. They killed them both at once. There is but very little brood in the old hive. By the appearance there are several eggs laid in one cell—each looks very large, acts like a laying worker. Is there any thing I can do to save the bees? Must I let them die, and start over again? F. B. FENNER.

Vineyard Haven, Mass., July 13.

[From the facts given in your letter it seems apparent that the queen of the hive was lost when the swarm came out the first time. Either her wings were defective so she could not fly, or she was clipped. In either case she failed to get back into the hive. But if that be the case it is a little strange that they should not have had a number of swarming cells in the hive. One of these should have supplied a virgin queen, and you should have had a laying queen in the colony. If a virgin hatched from a cell she failed to mate, or was probably lost on one of her mating trips. This would leave the hive queenless. A queenless colony will develop laying workers in a course of two or three weeks. Therefore a laying-worker colony will not accept a laying queen. At least we can set that down as a general rule that has exceptions. When you attempted to introduce the queen that you bought, the laying-worker colony probably killed her, and left it in as hopeless a condition as before. The fact that you find more than one egg in a cell is pretty conclusive proof that there must be laying workers in the hive. They are very hard to get rid of, especially for a beginner. You might try giving them a ripe queen cell from some other colony if you can secure one. Sometimes a vigorous young virgin, after she hatches, will be accepted; and if she is she will clean out the laying workers, or at least the bees do so.]

Very often, and we think we may say generally, the giving of a cell is only a little better than the giving of a laying queen. If you have other bees, scatter the brood and bees in other hives and break up the colony altogether—that is, providing the giving of a cell does not work.—ED.]

What is the Advantage of a Large Smoker?

I once thought a larger smoker would probably give me better service, first, because it would give me more smoke; and, second, longer service with one filling. After using a Jumbo I find that it *does* give more smoke, but altogether too much—more than half of it is wasted. During all the time I used the smaller smoker, I never saw the time when I did not have all the smoke I needed. What is the object of sending out a great volume of smoke when a small stream will answer all the purpose? And if a larger smoker produces more smoke, it also uses more fuel; and if it uses more fuel it burns out faster, and, consequently, will not last any longer with one filling than a smaller one.

Since I use the larger smoker I use twice the fuel I did with the smaller one. To be sure, the amount of fuel used is practically valueless. But we are not all so fortunately situated that we can any time step into a machine-shop and help ourselves to all the greasy waste we need. Some of us backwoods fellows have to depend on something else. I am surrounded by old apple-orchards, and have to resort to rotten apple-tree wood for my smoker material. This, too, has no intrinsic value; but, after all, dur-

ing the past twenty or thirty years I have spent quite a little time in gathering and preparing my fuel; and if I have to spend twice that time on account of a larger smoker, the latter would be an actual damage to me or to anybody who uses it.

La Salle, N. Y., June 15.

G. C. GREINER.

[A small smoker will give nearly as much smoke as a large one, or it will give as much as any one would ordinarily need in going over his hives. The chief merit of a large smoker rests in the fact that it will take a larger amount of fuel, and will, therefore, run longer without refilling than a small smoker. Where one burns comparatively large chunks of firewood, rotten wood, or any kind of bulky fuel, the large smoker with a big barrel is much more suitable than the small one. As a rule, extensive beekeepers use the large sizes, and the smaller ones the smaller ones.—ED.]

A Bunch of Questions

1. Can I use $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ sections in the same super where I have used $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$?
2. How can I get the queen out of the super? Can I use a bee-escape?
3. How can I stop a bad case of robbing?
4. Which is the best cover—the single-thickness board cover or the metal cover with inner cover? Fosston, Minn., June 26. SUBSCRIBER.

[1. The $1\frac{1}{8}$ -inch beeway sections require different fixtures, such as section-holders, separators, etc., than the $1\frac{1}{2}$ -inch plain sections; but if you have the fixtures to go with them you will not have much trouble in altering the super so as to take them.

2. About the best way to get a queen out of a comb-honey super would be to take the sections out one by one until you find her and carefully lift her off, and put her on one of the combs below. If you simply put a bee-escape between the super and brood-chamber, it would not work very well; for if there is any brood in the super the bees probably would not go down below and desert it, nor would the queen be likely to go below through the escape. Very few queens give much trouble by going up into the comb-honey super; and rather than use queen-excluders for a queen that is inclined to do so it would be better in the end, probably, to restrain.

3. There are a good many ways of stopping robbing—but one way where robbing has not progressed very far is to throw a bunch of wet grass over the entrance of the robbed colony. Another way is to exchange places between the robbed and the robbing colony. Still another and the best way is to carry the colony being robbed to a cellar for a day or two, then carry it back after contracting its entrance.

4. We regard the metal-covered telescoping cover with super cover underneath as about the best cover, all things considered.—ED.]

Large Reported Honey-yields

Some time ago I wrote you, stating I thought 500 or 600 lbs. of honey per colony too high an estimate. You replied you would not let any such statement be published, as that would be impossible; yet on page 297, May 15, Mr. Chadwick tells of an entire county averaging 700 lbs. per colony. Why did he not say a thousand, and make it sound more like it? A man in this locality obtained 500 lbs. from one colony, and people wondered how it was done. Come to find out, he put all his swarms in a dry-goods-box, hence results. Now, you might have fifty swarms in a box car and have them fill it, and then write it up for GLEANINGS and have something worth while. It takes a large piece of fat pork to make me swallow these tales.

WALTER C. BENNETT.

Frankfort, N. Y., June 17.

[Well, friend Bennett, it looks as if you had us where the hair is short. We shall have to back down and acknowledge that perhaps you have the laugh on us. On p. 486, Aug. 1, you will see where Mr. Chadwick explains the figures of large yields. We may say incidentally that California bees and California climate, with the right kind of management, and good seasons, will sometimes do wonders. We might say the same thing of New York State. However, it is our general policy to

fight shy of statements of large yields—not because they are not true, but because they are so much above the general average, one year with another, that the general public is a little inclined to be like you—they want “a large piece of fat pork” in order to enable them to swallow such tales. Come again, Bro. Bennett, or anybody else who finds that GLEANINGS is inconsistent with itself.—ED.]

Introducing Cell at the Entrance

I have great pleasure in reporting an idea (result of an accident) which sounds the death knell to queen-cell protectors. My nephew, R. J. T. M. Muckle, a most enthusiastic beeman, going to introduce a queen-cell, found nature had endowed him with only two hands; and as he was using a smoker, and had to remove cover, etc., he found them inadequate, so he laid a cell on the entrance-board while doing necessary work. He noticed that there was a scramble of bees at once over the cell, so hurried to the place where intended. Next day he found the cell firmly fastened in place, and all right. As he had had several cells torn before, he advised me to try the plan.

Now, I had a colony that would not accept a cell, even digging under a wire cage imbedded in the comb to destroy, so I followed the youngster's plan of leaving it at the entrance for *not over two minutes*. When putting a drop of honey on the point of the cell I placed it, and all was well. I have done several others, and with the same results.

A grand season is 1912, as was 1911; but there has been no failure since I came to Manitoba in 1870. ROBT. J. T. MUCKLE.

Claudeboye, Man., July 15.

[The idea of putting a queen cell in at the entrance of the hive has been before mentioned in these columns; but we can not recommend it, as such a cell is very easily chilled; and the baby queen inside of the cell, if it comes too cold from exposure, will be seriously injured. She may be able to hatch out, become mated, and lay eggs; but as a general thing such queens are short-lived. Perhaps in extremely warm weather the occupant of the cell would receive no injury.

We may say in a general way that, in most cases, the queen cell may be inserted right inside of a queenless hive, without protector of any sort, and the bees will not tear it down; but because there is danger of their doing so, we advise putting cells inside the protector. The protector not only prevents the bees from gnawing holes in the cell, but it prevents it from being crushed in handling. When a queen cell is in a protector it can be pushed into the comb and not injured. For that reason, when we give cells we advise the use of protectors.—ED.]

The More Comb in Bulk Comb Honey, the Better

I have just read Louis H. Scholl's communication, June 15, on bulk comb honey. I have a good demand here in Chattanooga for the bulk comb honey in different-sized packages in glass jars, pints, quarts, half-gallon, and in tin pails, friction tops, 10, 20, and 60 lb. tin cans, and I find in a great majority of cases the more comb the better the customers are suited. I get the comb honey cut from frames packed in ten-gallon kegs and fifty-gallon barrels shipped me from Mississippi, which comes in good condition when packed close with comb and filled in with extracted honey. I have received a few packages which were not properly packed, and arrived in bad condition.

As stated, comb honey is lighter than extracted. The most of my patrons are very particular to have full weight exclusive of containers. My principal trade is in supplying the retail grocery trade, and they are not inclined to pay for the cans weighed as honey. I am just like them. When I buy a barrel of honey I want the weight of the barrel taken off every time; but they have a custom in the South of selling 13 lbs. for a gallon, and nothing off for the barrel.

Chattanooga, Tenn., June 24. G. E. LEAVITT.

To Tell which Hive Cast the Swarm

My way to tell which hive the swarm comes from is this: I give the swarm as usual except about a cupful of bees, and take it to the further side of the apiary, or cover it up with a cloth so the bees left can not find it. Now, if these bees do not take wing

readily I smoke them. Then I look over the hive entrances, and, seeing one with bees standing with buzzing wings and abdomens sticking up instead of down, as ventilator bees do, I know that *that* is the hive. I have located about fifteen such swarms this season, and several last year, in an apiary of 120 colonies, often finding their hive in five minutes.

I have caught a good many stray swarms by putting out decoy hives.

When I was attending public school I put a hive under my buggy-seat and took it to school every day. (I did not know then that I could carry a swarm home in an old sack.) Well, a swarm took possession of this hive one day, and I took it home without taking it from the buggy!

Lakeside, Cal., June 3. G. E. PHILBROOK.

The Tupelo Tree as a Honey-plant

A subscriber sends us the clipping below, which he says was taken from the *Florida Grower*:

I want to find a good location for an apiary where the tupelo tree grows plentifully; also want it where there are some large orange-groves near by. Some of your subscribers may know of such a location.

Stuart, Florida.

E. S.

[Note.—Perhaps some subscriber can answer this question. We have never heard of the tupelo tree before; and in a list of over 300 Florida trees this name does not appear.

There are some very successful apiaries in Manatee Co., and along the west-coast keys.—ED.]

[The above illustrates how poorly some editors are equipped for giving information. On pages 596 and 597, Oct. 1, 1911, J. J. Wilder describes and illustrates the tupelo; and it is also illustrated in the last paragraph on page 374, June 15, this year. I have just interviewed Mr. Marchant, our apiarist, and he says that in Northern Florida, where his father is located, they have taken out as much as 100 tons of tupelo honey, and the tupelo tree is thickly scattered over a region of 100 square miles in Northern Florida. If I am correct, there is but little or no tupelo in Manatee Co.—A. I. R.]

Why Winter Bees at the North?

I agree with some of the imaginings put forward by your anonymous writer on p. 307, May 15, for I was arguing similar ideas with my brother the day before receiving our copy. I can sympathize with his wish to remain anonymous, for I found that unorthodox suggestions are not always gratefully received. I protested there was need for imagination in beekeeping as well as in science. I suggested what I termed a more free treatment of bees, somewhat as follows:

Our grandparents set 13 eggs under a hen, brooded the chicks under the hen, and seldom transferred them far from home. Now we send eggs miles away, incubate them by hundreds, rear in brooders, and have a big trade in day-old chicks. Bees are conservative things (they reject new queens, they resist uniting, and they refuse to be changed in position); yet is it not possible to adopt a similarly free treatment of bees?

When, suppose, the only honey-flow of a district is an early one, or early because of being in the South, why not, when it is over, catch most of the flying bees which then become consumers, and a nuisance in the apiary (I used to suggest destroying them), and sell them to be hived on foundation in a district where there is a later flow? They might be fed on sugar for about three weeks before the flow commenced. One can imagine bees being transferred once or twice during the year, and some of the keepers keeping them for only about two months of the year, while others keep them all the year round and rear them in large quantities to supply those who don't.

Why so much cellar wintering? Why not buy bees by the pound from the South, where they may be reared in large quantities? Why not the price of bees by the pound be given in the daily paper like that of other commodities? One can imagine a big yearly trade or seasonal migration of bees, with local importers and exporters. Why shouldn't they be transferred from south to north, and from one honey-flow to another? Why shouldn't a beekeeper, if the honey-flow of his district is of short duration, whether early or late, if he does not want to keep bees all the year round, double or treble such re-

cently hived stocks under one queen as soon as the flow commences, so as to liberate a big gathering force, and so as, when the flow ceases, he will have comparatively little brood, and few bees to sell or destroy! Then extract from all the frames, making no distinction between brood and super, and melt the wax and put away the hives for another year. Some would never need supers, and yet produce large quantities of honey and wax. Whether one degenerated and doubled, or continued to produce bees to the end of the flow, would depend upon the market price of honey as compared with that of bees. Thus we might revert somewhat to skep methods, combined with the movable frame and tiering crate. Foul brood would be unable to exist.

Beverly, Eng., June 20.

T. T. TAYLOR.

[See Editorial.—Ed.]

Worker Bees of Normal Size Reared in Drone-cells

Some time ago there was some discussion about large bees. Some one wanted to renew the combs each year, and some one said use drone-comb foundation and the bees would all be large ones. I did not use drone foundation, nor did I intend to experiment along the line of raising big bees. It happened that I used inch starters in some frames last fall for bulk comb honey. The bees made drone comb of them all, 9, and did not finish them nice enough for comb honey, so I let them stay on the hive all winter.

This spring, while working with the bees, I found a whole body of 9 combs full of drone brood, as might be expected. A few days later, I was looking for queen-cells, when I accidentally uncapped one of those drones; and to my surprise a worker bee walked out. That put me to looking and thinking, so I uncapped some more of them, and they were all worker bees, and, to my eyes, they were no larger than those raised in common worker cells. I used some of this brood with brood from other hives to make some nuclei, and do not see any difference in the bees. The little workers looked lonesome in those big cells.

Lane City, Texas, May 11.

W. H. MOSES.

[Numerous cases like this have been reported in times past. We may safely say that enlarging the cells in order to rear larger bees is an old exploded theory; and yet every now and then some beekeeper gets it into his head that he is going to be able to rear larger bees, and he wants the foundation man to furnish him cells slightly larger than the worker. It has been proven that old combs do not produce smaller bees than new ones. See what our correspondent, Mr. Gardiner, has to say.—Ed.]

Do Young Bees Take up All the Room in the Cells?

Just a comment on Dr. Miller's Straws, p. 262, May 1. If a man faced the south you would have no difficulty in telling which was his right side. Why is a hive different? Those who claim that old combs make small bees must think that the cell fits the bee like tight. As a matter of fact, does any young bee in a cell ever entirely fill it?

Geary, Okla., May 27.

N. FRED GARDINER.

[You are entirely right, friend Gardiner. Any one who has old combs, even though they may be thirty or forty years old, would do well to keep them, if they are free from disease, are perfect, and providing he is not running for choice extracted honey of light color. Many beekeepers believe (and there is some ground for their belief) that old combs have a tendency to darken extracted honey.

But the internal diameter of old combs is never reduced beyond a certain point; for when the cells are a little too small, the bees will remove the excess of cocoons, says Mr. Cheshire, so that the baby bee will have room in which to grow to normal size.—Ed.]

Disease Instead of Poisoned Brood

In the spring of 1910 a large apple orchard in this neighborhood was sprayed, and at that time part of the trees were in blossom. There were two farmers who had adjoining property, and each had about a dozen colonies. A few days later they complained of their bees being killed by the spray. A while later I chanced to be at the house of one, and examined some of the hives. They were filthy with foul brood, and not a cell of honey in either, so this was not a case of poisoning from spraying.

Now, I am not saying that they can't be killed by spraying, but that a great many thought to be killed in this way are starved to death or else die of disease.

We now have a law against spraying during time of bloom. The penalty for violation of this law is a fine of \$50.00. I think this is a good law, and all fruit-growing States should have a similar one, as it has been proven that it is better not to spray while the trees are in blossom—just before or afterward.

Some of the best fruit in the State is grown at South Haven. The Scalacide cup for the best three bushels of apples was captured for two successive years by South Haven orchardists. I am an apple-raiser, and keep bees to pollinize the fruit blossoms as well as for the honey and the pleasure derived from keeping bees.

ROBERT MCLEAN.

South Haven, Mich., June 10.

[There can be no question but that there are some cases like this, where disease and not the spraying liquids is the cause of the dead brood; but we are equally certain that there are other cases where brood is killed because fruit trees are sprayed while in bloom. A remarkable instance of this was in Mesilla Park, N. M., two years ago. Both the brood and the bees died while the spraying was going on; and when it ceased, the loss of both stopped. It may be that some make their spraying liquids too strong; but in view of the fact that there is no advantage in spraying while in bloom, from the standpoint of the fruit grower, there ought to be a law in every State against such spraying, to protect not only the beekeeper but the fruit grower himself from his own folly if he does not know any better.—Ed.]

Three Carloads of Diseased Bees Brought into a Healthy Location

In Butte Co. a man moved in about three carloads of bees from Nevada, and a number of progressive beekeepers found his bees terribly diseased with European foul brood. As this county has been free from foul brood it is time that every county have a good foul-brood inspector. We tried very hard to get one for this county; but the supervisors will not help the beekeeper. They claim it is not important. I hope the United States will enact a law that will compel all States to see that they have an inspector, with deputies in all counties.

I heard that this man has gone into another locality that has no county inspector, just to avoid losing his bees by an inspection. It is time to demand certificates of inspection that are dated not longer than five to ten days prior to entrance to each State or county, and on arrival be inspected again if free from disease. The party should be entitled to a right to enter a desired location.

I sincerely hope to see that a safety valve is put on this industry, as we should be guarded against evils like European foul brood. It will do a great harm to California, now being in the North, by this introduction of bees of Nevada. I hate to think of this, as it places fruit men in a bad place too. I am in favor of stopping this migratory beekeeping if disease is going to be brought in to healthy places.

Chico, Cal., June 2.

S. J. MORRISON.

Queens do Not Use Wings to Balance Themselves when Laying

A. C. Miller, p. 755, says regarding the clipping of queens, "When a queen backs into a cell to lay, her wings slide out over the surface of the comb to balance her. As she starts out the wings materially assist her." This seemed conclusive until I watched a queen lay. Of ten unclipped queens that I have seen laying within the last 48 hours, only one touched the surface of the comb with her wings. She was a very small queen. I do not think she used any pressure of her wings to balance her—at least there was no noticeable flexure of the wings. In three cases the wings did not come within $\frac{3}{4}$ of an inch of the comb; in the other six, not within $\frac{1}{4}$ inch. Several times worker bees came up behind under the wings while the queen was laying, and seemed to look down past her body into the cell, but her wings did not touch the worker bees. All these eggs were laid in worker cells. There was no indication of a balancing action by means of the wings, nor any motion of them. It would have been absolutely impossible for either of the nine large queens

to touch the comb with their wings. I take it that Mr. Miller refers to action of the wings on the comb on which the queen is resting, not the one behind her. It is likely that stunted queens laying in worker cells, or perhaps other queens laying in drone cells may touch the comb with their wings. Neither of these cases seems to have any practical interest.

HARRISON H. BROWN.

La Plata, N. M., May 17.

Ignorance of the Market Value of Honey Lowers the Selling Price

Many beekeepers in this locality do not read a bee paper. A great deal of the honey they bring in indicates this. If they would read some bee journal they would not only be able to produce a better grade of honey but also realize the market valuation of it. As it is, they put it up poorly and sell it on the market for what they can get, as it can not stand shipment. Honey, this season, was selling at 15, 18, and 20 cents per section, according to grade. One farmer brought in 1000 lbs. of this poorly put-up honey, and a storekeeper bought it at 11 cents per lb. and sold it at 15, actual weight. This, of course, made a crash in the price in a place like this. I see no reason why a pound of good clean comb honey should not be equal to a pound of cheese which sells at twenty cents.

O. J. GOODMANSEN.

Little Falls, Minn., Dec. 9.

Coal Oil to Stop Robbing

I want to tell of an experiment I tried to stop robbing. I made two nuclei of four frames each, and set them on new stands near the main yard, with an entrance of about 4x½. The bees were all young, and robbing set in. The robbers were in droves.

I quickly grabbed a handful of wet grass and put it in front of the entrance which I had contracted in the meantime; then I took a paint-brush and a can of coal oil and spread the oil the width of the brush, all around the hive. The robbers came out of the hive loaded, and went back to their colonies; but when they came back they smelled the oil in front of the hive, and then, going around the sides, found it there also. In three hours there was not a robber around these hives, and robbing has stopped throughout the apiary.

Manchester, Tenn.

W. T. SALE.

Will Chickens Eat Bees?

I would thank you very much to let me know whether chickens will eat bees. I asked several people this question, and some said yes and some no. We have chickens and a garden, and I have heard that bees should not be put close to any thing growing such as grass, etc., so the only place left for me to put them would be in the chicken-yard.

Richmond, Va., July 22. DOUGLAS M. STITH.

[As a rule chickens pay no attention to bees. A few cases, and only a few, have been reported where they do so, and even then we suspect they eat fresh dead bees, live drones, and young brood when it is thrown out. If they once acquire a taste for live drones they may eat live worker bees. If any one has positive evidence that they do, let him report.—Ed.]

Flags to Show Virgins which Hives they Came From

After reading William A. Sedding's article on tacking up playing cards above the entrances for sign-boards, I wish to mention a plan I have adopted which has proved very satisfactory. All colonies in Imperial Valley are placed under shades called ramadas, made of brush covering about 12 feet in width, and in length to accommodate from 50 to 200 colonies. The hives are placed at the sides with entrances facing out, in straight rows. Naturally, the hives being uniform, and being placed evenly in rows, a great number of virgins are lost unless some distinguishing sign or mark is made.

I take a lath and fasten it lengthwise on the cover with a projection of from twelve to eighteen inches over the front of the hive. On the end of this I fasten a piece of cloth, forming a flag. The virgin locates her hive by this flag, and hardly any are lost.

El Centro, Cal., June 24.

A. F. WAGNER.

To Get Combs Built to the Bottom-bars

I have found that the half-inch bottom-bars mentioned by Fritz Bohne, p. 339, June 1, do not always result in having the combs built clear down to them. I am going a step further and putting a line of melted wax in the middle of these bottom-bars; and from preliminary tests I believe it is going to be a success. The half-inch bottom-bars are a good thing.

I believe in feeding the bees of a newly hived swarm until they get the combs drawn out, and then they will do wonders if a good flow follows from the fields soon.

Jonesboro, Ind.

C. A. NEAL.

Is the Breeding of a Yellow-to-tip Bee an Impossibility?

I wish to take issue with the editor on page 393, July 1. If by breeding and selection we have obtained a bee that shows five bands yellow from the original stock of three band, is it asking too much to expect to eliminate the last dark band?

Again, the editor says: "Yellow-to-tip bees or five-band bees — according to my light, is only the six-band yellow bee that will be yellow to the tip." Does "to the tip" mean all but the last segment, or does it mean literally yellow to the extreme end of the bee?

Such a bee is yet to be produced, according to my knowledge; yet I deem it no impossibility.

Swarthmore, Pa.

P. G. SNYDER.

[As you say, a yellow-to-tip bee is yet to be produced. We have never seen any *workers* of that sort. We believe that they *can* be produced; but so long as it seems to be very difficult to raise queens that will produce all or 75 per cent five-banded bees, the prospect for producing six-banded or yellow-to-tip bees is not very reassuring. By "yellow-to-tip" we mean yellow all over the abdomen.—Ed.]

Where Did the Eggs in the Queen-cells Come from?

The other day when working with my bees I noticed that one colony had no young bees nor queens, but I found eggs in five queen-cells. I can not understand where the eggs came from when there were no other eggs in the comb. I watched closely, and found that the eggs never hatched. There was no evidence of laying workers, no drone brood, nor any thing of the kind. I gave the bees of this colony some eggs from another colony, and they reared a fine queen.

Yeager, Ky.

JOHN A. DAMRON.

[This looks as though those eggs had been stolen by the bees from another colony in an effort to rear a queen. There have been many instances of this kind, even in our own apiaries, and it seems hard to explain the presence of the eggs in any other way.—Ed.]

How Long Does it Take to Find and Clip 100 Queens?

How long does it take an apiarist to clip queens in an outyard of 100 colonies if it is done at the proper season? I am supposing that his time is fully occupied, and that he must work at it when he decides to go to the yard.

Galena, Kan., July 11.

J. P. BRUMFIELD.

[It depends considerably on the skill of the operator, and also upon what time he is bearing mere luck. The color of the bees has quite a bearing on the matter also. Small queens are hard to find, especially if they are dark. Even under quite favorable circumstances we doubt whether 100 queens could be found and clipped in much less than ten hours.—Ed.]

Good Year in Spite of Heavy Losses

I am getting more honey this year than I ever did before. I started with 20 stands in the spring, some of which were very weak, and I have had nine swarms. We had an immense locust bloom; then the berries and white clover came on, and the bees filled their supers faster than I could get them ready. The white clover is better, and there is more of it this year than for a long time. I have taken off 400 lbs. of honey, and will likely get 200 lbs. more, for all of which I get 16 cts. per lb.

Cheat Haven, Pa., July 18.

FRANK BAKER.

Our Homes

A. I. Root

When a man's ways please the Lord, he maketh even his enemies to be at peace with him.—PROV. 16:7.

If ye abide in me, and my words abide in you, ye shall ask what ye will, and it shall be done unto you.—JOHN 15:7.

And it shall come to pass, that before they call I will answer; and while they are yet speaking I will hear.—ISAIAH 65:24.

The year 1879 was an eventful one in my life. Obstacles came up in the way of my plans for developing bee culture; but the wonderful answers to prayer came thick and fast in enabling me in a striking way to surmount these obstacles. I will go over some of the events briefly.

In putting up the first brick building on the grounds we now occupy I became for a brief time somewhat financially embarrassed. The good friends here in Medina, and even my own relatives, were troubled about my getting the boys out of jail to work for me, and in expecting that God would answer my prayers for financial help, etc. All at once the way seemed blocked, as it were. None of my good friends were willing to advance me money any longer, and the man who furnished the brick for the first building declared he would have to have his money, and finally he said if it was not ready on a certain day he would make me trouble. Just then the little hymn from Moody and Sankey's collection, "Take it to the Lord in prayer," was very popular. It was my habit, in kneeling down with my wife at night, to tell the dear Lord of my difficulties, and ask him not only to direct me, but to furnish the means for doing his work. The man who furnished the brick said he would have to have his money on a certain day and at a certain hour. Almost immediately after this prayer a stranger, George O. Goodhue, of Quebec, Canada, visited our place, and volunteered, without my mentioning the matter, to furnish the money I needed. My friends laughed at me again for having faith that an utter stranger should send me money without security. On the day in question our mail came in about an hour before the time I had promised the money. I told the girl who was opening the mail that I was expecting a letter from Quebec. In a few minutes she sailed a letter over to my desk, saying, "There is your Quebec letter, Mr. Root." When opened I found it to contain a check reading, "Pay to A. I. Root \$500 in gold, and charge to the account of George O. Goodhue."

The brickman came in very soon after I had the check in my fingers, and was greatly surprised to find I had the money for

him. This whole event is fully recorded in the Home papers for 1879, with many similar ones. At that date I was manufacturing a fifty-cent smoker, and I made a reckless offer (as most people thought it) of giving one of these smokers to any beekeeper who would abandon the use of tobacco. The tobacco pledge was put in print in our "young" bee journal. First and last, more than *one thousand people* gave me the pledge and received a smoker; but at almost the same time that the man came from Quebec our good friend Bingham came down from Michigan and informed me that my smoker infringed on his patent, just then taken out. After talking it over it seemed a question as to whether his patent would hold legally; but rather than to go into litigation (for that would disturb my spirituality more than any thing else) I gave way and made a promise not to make any more smokers. In fact, at that time I decided I would not go into *any thing* whatever unless I could honestly ask God to bless the undertaking. I told friend Bingham, after we had talked the matter all over very thoroughly, that I would stop making my cheap Simplicity smoker. I believe father Quinby had the credit of making the first bee-smoker to be blown by a bellows instead of using a tin tube blown by the mouth. Bingham's invention, however, was, without question, an improvement on the first rude smoker. When I told Mrs. Root my decision, she thought, as did some others of my friends, that my conclusion was hasty and even reckless. Let me quote my very words to her, from GLEANINGS for January, 1879: "If God has really directed me, in giving this up, he will certainly guide me in giving beekeepers something just as good if not better in place of it." I went to bed and slept soundly, although I did not know how in the world I should get smokers to sell at the low price of 50 cents, and a large part of them to be given away. Next morning, when I got down to my new office in the brick factory, a queer-shaped package from away off in California lay on my desk, and with it the following letter:

ALL ABOUT BEE-SMOKERS.

Having examined all the bee-smokers of the present day, as well as many of more ancient origin, and experimented not only with those of other makers, but also with several of my own make, I arrived at last to the following conclusions and objections:

All smokers made on the principle of blowing a blast of air through the chamber containing the fuel are defective for this reason: The fuel is made to burn up rapidly; and, worst of all, the smoke is hot; and who has not noticed how hot smoke irritates bees instead of quieting them?

The Novice smoker, on the score of simplicity, was far ahead of any I had seen; but its simplicity in one feature (having no valve) was an element of weakness; as in supplying itself with air from a point so near the fuel it inhaled smoke, which caused an accumulation of soot in the bellows; and during a long honey season of from 60 to 90 days, in large apiaries, it became disabled. The leather became black and hard, and it failed.

Having tried modifications of nearly all the principles claimed in other smokers with poor success, I set myself to work to remedy what I considered the defects of your smoker. 1. I put in my simplicity valve; 2. Instead of blowing my fuel when it was already burning fast enough, I concluded to blow my blast up through the fuel in a solid tube, ending far enough up in the spout (which I had added to the top of your fuel-case) to create a vacuum, and cause the smoke to rush in to fill this vacuum, and in so doing to mix itself with the blast of cool air, thus giving me a *cold smoker*. I then arranged a damper so as to regulate the draft to suit my fuel, and *Corey's cold smoker* was completed.

We have made a very thorough test of this little modification of your smoker, and found it satisfactory; and every beekeeper who has seen it and tried it says Bingham's is "nowhere." This vacuum principle is not any part of Bingham's *blow-hard, hot-blast, direct-draft* principle, and you are at liberty to use my improvements to your heart's content, without cost. I will mail you one as a sample, so that you can readily get the principle; and if it can be cheapened in any way, and not lose any of its merits, you can modify it.

Santa Paula, California, Jan. 12, 1879. JOHN G. COREY.

P. S.—If this gets you out of the smoker difficulty, I shall be fully rewarded. This offered relief comes further than the \$500 check did.

One day later.—In my hurry to send you a smoker I was compelled to use borrowed tools, use a piece of an old packing box for the boards, and put in a poor squeaking spring; and then after boring my outlet hole wrong, and various other mistakes and blunders, I finally got it ready to send off. Rough as it is, it will be a guide to you only as an application of the vacuum principle as applied to smokers.

I nailed it up without glue, so that you could easily pull it apart to see the valves.

Calf skin is best for the valves; $\frac{1}{2}$ -in. clout nails for fastening and clinching the spout on.

I use rags. Make a roll $1\frac{1}{2}$ in. in diameter, and about 8 or 10 in. long, and coil it around the pipe, so that the ends will not meet, thus, when it will burn only on one end and burn slowly.

JOHN G. COREY.

You will notice that friend Corey refers to the \$500 in gold that came from Quebec. The smoker that got me out of trouble came from still further away. Perhaps I might mention right here, that, a little later on, Mr. Norman Clark, of Sterling, Ill., sent me a sample of what was called Clark's cold-blast smoker,* which is the one our peo-

* Below I also give friend Clark's letter that came with the smoker.

I received my Jan. GLEANINGS promptly on time, and at once set myself down to read. Somehow I get to "Our Homes" very soon, and before one quarter of the book is read. When I read your talk with Bingham, and your decision about the smoker, I thought there might be some other plan of one that would answer as well; very soon a plan came to me, and I worked it out in its details.

Now, I have your Feb. number of GLEANINGS, and, lo and behold! you have the same principle embodied in one from a friend in California; but I have decided to send you the one I have made, and perhaps there may be some features about it that you may like even better than Corey's.

It works beautifully; the draft of air across the top of the fuel causes it to burn clear and slowly, and leaves very little creosote. I find that rags burn, but perhaps $\frac{1}{4}$ as fast as where the air is forced up through the bottom. Its convenience as a "breach loader" is an item in its favor, also that

ple at the present time now furnish at the low price of 55 cents. The first year after this cold-blast smoker was put on the market 20,000 of them were sold to the beekeepers of our land. I wonder if it has occurred to any of you that the cold-blast smoker was on the way from California before that little prayer, "Lord, help," was uttered in regard to the smoker question. Many people have said to me, "Why, Mr. Root, you are short-sighted, for the smoker was on the way, and it would have reached you just the same if you had not prayed at all." And right here just now comes in so beautifully that promise in the last text I have chosen—"Before they will call I will answer; and while they yet speak I will hear." Does it trouble you, my good friends, to grasp the great truth that the great Father above, who is the "alpha and omega," can put in motion the machinery necessary to answer our prayers (offered by his children), even before the prayer has been made?

The two incidents I have mentioned are only a few of the many that occurred in the year 1879. What has called the matter up just now is that our friend J. G. Corey is still living, and his picture will be found on another page of this issue.

Let me remark right here, that, away back in the early days, when Italian bees, or bees of any kind for that matter, were first sent to California, friend Corey was employed by the government to carry the mail where there were no railroads, and hardly any roads of any kind (for that matter) in those localities. He got a small colony at a big price, and made a very light hive for it, for the colony was really only a nucleus, and carried it on his shoulders more than a hundred miles over the mountains. Part of the trip could be made only on snowshoes. He got them through alive, and from that single colony alone he started an apiary. He built them up successfully; divided, and for quite a time he sold all he could spare, for forty or fifty dollars per colony; and that was the start of the great beekeeping industry in that region. Mr. Harbison, who took a carload of bees to California about that time, sold a great

it retains its position while in use. The Simplicity always seemed to me a little awkward, on account of being obliged to turn it bottom up so often, while in use.

Now, if you can use this to advantage, or modify it to suit you any better, you are welcome to it.

As a counterbalance to friend Sedgwick, I will say that the best part of GLEANINGS, to me, is "Our Homes." Four years ago I would have written as he does, but I see things differently now, and am happy in being able to place myself by your side, as a Christian. May God speed you in your good work, and bless "Our Homes." Your friend,

Sterling, Ill., Feb. 4, 1879. NORMAN CLARK.

part of them for \$100 per colony, and a few were sold at over \$200 each.

It was my pleasure, in 1903, to have a grand visit with both Mr. Harbison and our old friend J. G. Corey. You can imagine friend Corey's delight in not only astonishing the world with the *quantity* of honey he secured, but also with the *quality* of the California water-white sage honey.

In closing up this Home paper I wish to make a brief extract from an article in GLEANINGS, away back in 1879, headed "Troubles." It illustrates the difficulties we then had with the express company.

In May a customer from Texas ordered three \$3.00 queens. To avoid delays and save expense we tried to prepay the charges; but the express company could not tell what it would be over the southern lines, so they would not receive the money in advance. Time passed, and the queens were not received. A tracer was sent, and, after long delays, they were found held at some point in Texas. They were held until the back charges should be paid, yet neither myself nor my customer was notified where they were nor what the trouble was. The cages were made in such a way that the officials could easily see that they were bees, and perishable, and yet they put them up on a shelf, and let them die; and, nearly two months after, we were asked for the back charges, and whether we wanted the dead bees forwarded to destination. I sent back word that they should throw them out of the window, stifling my temper as best I could. They very kindly consented to do this, but sent back for \$1.75 charges for carrying them so far and keeping them until they starved. I felt very much, then, as if it would be inexpressibly delicious and soothing to be permitted the luxury of tearing that Texas man's shanty all down, and giving him such a shaking that he would never think of starving any more innocent bees as long as he remained in the express business. But I put away such thoughts, paid the \$1.75, and prayed God for patience, and that he would help us to soften even the hearts of the express companies. What do you suppose happened? Nothing different from what has happened a great many times in my business troubles and trials. A gentleman came in, a few mornings after, introducing himself as the superintendent of our express line. He said he had noticed the amount of business we had given them, and asked if he could do any thing to aid us. In a twinkling our printer had some neat little labels directing any express agent in the United States to forward the package it was on, without delay, under any circumstances whatever, signed with the superintendent's name. He also made arrangements to carry queens, smokers, etc., over any or all northern lines for one single charge of 25 cts., besides fixing many other things greatly for the comfort and convenience of myself and you.

I want to quote another sentence from that article, further on:

I felt again, that, when men held important positions, and were too proud and lofty to give us notice, God never was, and he would *always* answer.

No wonder such a faith and such a practice built up business. My prayers were not for self, as you may notice—at least not altogether for self, but for the friends scattered all over the world who were anxious to engage in the new industry of beekeeping.

While on this subject it startles me to note that, during all of these years, the express companies have been allowed to do business, and still do it at least occasionally, in the way the above transaction indicates.

Below is a letter received this present year, as you will notice, from our good friend Corey:

THE COLD-BLAST SMOKER.

Necessity is said to be the mother of invention, which is true in this case, as something had to be done. In the early history of beekeeping in Southern California we were poorly provided with implements, and used our wits to make such as we were in need of, as the problems presented themselves. First of all, smokers were the old saucepan filled with many different kinds of fuel. This was used by nearly all the early beemen, utilizing the wind to waft the smoke where desired. Then came the two-inch tin tube, about a foot long, rags or old gunny sacks being used for fuel, and the breath of the beeman used to carry the smoke where desired. The results of this smoker were imperfect in only one case, where it never failed. Headache always followed blowing.

Then came the announcement of the invention of the Bingham smoker, which was patented in 1878, or thereabouts; but the dealers on this coast never sold goods "for their health," so the price was too high for us. Mr. A. I. Root, then publishing GLEANINGS, brought out a cheap smoker called "Simplicity," that answered our purpose, and it was going into general use. Then suddenly a cloud (no larger than a man's hand) came over the horizon, and threw our cheap smoker into a dense shade. Mr. Bingham notified Mr. Root that his Simplicity smoker infringed on his patent. That made a mess of our favorite smoker, and stopped its manufacture. I looked over the situation, and decided to run the cool-air tube up into the nozzle and create a vacuum, which would cause the smoke from the fuel-box to rush up and be blown out as desired; and that the cool air from the bellows, by not being passed through the fire-box, would furnish a cooler smoke than the Bingham smoker. I sent one of my cold-blast smokers to Mr. Root, and received substantial thanks from him. Now after over thirty years have come and gone, many different patterns of smokers have been invented and manufactured, all of them having advocates. All of them are fairly good, and moderate in price.

Our modes of handling bees, now that we all use a quilt out here, thus avoiding the snap in removing a sealed cover, and by breeding bees of a better disposition, enable us to use very much less smoke than in early days.

Many changes have taken place since then. Four years ago Mr. Corey died, leaving me to finish up the battle of life alone. My health is fairly good; but my great age admonishes me to be ready at any time. I am 84.

Santa Barbara, Cal., Jan. 3.

J. G. COREY.

The above letter reminds me that, in one of friend Corey's letters, he said, after seeing how successfully his smoker worked, he had designed to get it patented; but he finally told his good wife he would rather send it to A. I. Root, and have him improve it, and give it to the world at a moderate price, than to go to the fuss and bother of getting out a patent, even if it *should* prove to be of considerable value.

BE NOT WEARY IN WELL DOING.

Mr. A. I. Root:—In reading one of your articles in GLEANINGS for March 15, 1911, it led me to write you to know what you would do with a Bible class in Ohio of 52 ladies in a Congregational Church who had one of the best teachers a class ever had, and who was very anxious to have the class do something to help in God's work, such as rescuing the fallen or helping the Salvation Army in their work, or do something to down the white-slave traffic. They seemed to be so unheeding he became discouraged and resigned from the class. What can be done to stir up such women? I am a member of the class, and would like your advice. I ask God to help, and show me what to do. O. C. M.

My good friend, we can rejoice and thank God for two things that you make known in the above letter. The first is that there is a class of 52 ladies (young ladies, I take it) in the Congregational Sunday-school in your place. Secondly, we can rejoice and thank God that there is at least *one* praying woman in that class, one who is really "hungering and thirsting after righteousness;" and you know what the reward is. Keep on praying, and use every opportunity to plead for Christ Jesus, and show this, that I am dictating, to your good but discouraged teacher. Tell him that I say he should by all means and under all circumstances hold his place at the head of that class, and cease not to work and pray, for the promise at the head of our text is plain and sure. Sooner or later he will have his reward. You do not tell me how many of those 52 are professing Christians; but the fact that they continue to attend, at least in moderate numbers, is sufficient evidence that they are not so far away as you and he may think. Many and many a time during my past Christian life of 40 years or more have I become discouraged and almost ready to give up, when, lo and behold! in some unexpected way my prayers would be answered. Keep on hungering and thirsting after righteousness, you two, and you *shall* "be filled."

FLORIDA LAND SWINDLERS, ETC.; SOME OF
THE DRAWBACKS IN GOING DOWN
TO FLORIDA.

Dear friend Root:—I have been reading GLEANINGS for July 1 while it is raining this afternoon. I am glad to see you standing *oy* your guns in the Florida swindling, for that is what a lot of it is. Next April will be 30 years since I struck Florida sand. I have not got rich, but I am content to end my days here. I have no desire to leave it. I have been from Pensacola to Key West, up and down, and across on foot, by boat, by wagon, by train. It is a big State, some of it as good as the sun shines on, and a lot of it absolutely worthless. The sad thing is to see men well up in years sell their homes and come down here under strange conditions, and blow in every dollar they have on propositions that those of us who know the country could not be induced to put a dollar into. A lot of them are paying for their experience right now; and if they alone suffered it would not be so bad; but women and children have to put up with conditions that are furious. There have been four or five years of exceptionally light rainfall, and it has given these schemers the opportunity of their lives, and they are using it. But I am inclined to think this season is going to put a damper if not a cold bath to a lot of it—over ten inches of rainfall in May, over 16 in June, and I think it has rained every day in July so far, with a prospect of this being kept up till mid September. This will likely give the muck-boomers some questions to answer that will be somewhat difficult. But as long as men are ready to listen to the fairy tales of men who are seeking for their cash, I do not know what you and I can do but refuse to be a party to it. To a man who wants a pleasant climate, and work out of doors, that will make a living or a little more, I know of no place I would rather risk than the right location in Florida; and there are plenty of them, but they are not in the hands of land-boomers. The successes are given,

not the failures. I have followed what you have written, with interest; and I think you have been fair. There are great opportunities in Florida, and there are great opportunities to blow your money in and never be able to find the hole it went into. The tenderfoot wants to go slow. About two years' experience right out in the field and he will begin to know something of Florida sand—its worth and its worthlessness.

Bowling Green, Fla., July 18. IRVING KECK.

I wish to emphasize the point our good friend Keck makes, by saying the good localities are not in the hands of the land-boomers. These "land-boomers," as he calls them, usually hunt up a tract that can be bought for a little money, or a little money compared to its real value. Then they start out with their spread-eagle advertising, and sell off lots or five and ten acre tracts until they get their money back several times over; and then they leave their deluded victim to sell out (if he can) and go back home. Let me give you a little history of a beekeeper here in Ohio who got so wrought up over the talk about Florida that he sold his home, farm, bees, and every thing, and moved down to Bradentown, expecting to make it his permanent home. His first setback (and this, perhaps, had considerable to do with getting him discouraged), was with the railroad company. He went to the agent near his home, and made a contract for a carload of household goods, etc., to be delivered in Bradentown. As he has a little automobile he asked if that could be put in the same car. The agent assured him that it could; but measurement showed that he would have to have a car with a wider door to get the machine in. This agent informed the railroad company, and they sent to Pittsburg and got a car with a wider door. The goods were all loaded in the car. He paid the price, and got a receipt in full for the shipment to Bradentown. Imagine his surprise and disappointment to find that, before the car could be opened, and before he could get his goods, he would have to pay an additional charge of something like \$200! This was the "penalty" affixed somewhere in Jacksonville for putting an automobile in the same car with household goods. Now, the automobile could have been shipped alone for about \$50.00. In fact, I have had two such shipments—one from Medina, O., and the other from Chicago, for only about \$50.00 in each case. The other \$150 or more was a *penalty* imposed on an innocent party—one who paid all the agent asked, and got his receipt in full. He paid some more money to a couple of attorneys for letting him know (?) that he could not well help himself. I took the matter in hand, however, and (with the aid of the *Rural New-Yorker*) I am not yet convinced that there is no redress.

I have thought best to mention the above because several parties coming from the North have been assessed additional charges—not quite so large, however—in several cases, even after they had the receipt in full, paid to destination.

Let us now go back to friend Klein, who came to Florida, I think, some time in November, on account of his health. He improved rapidly, and gained 15 lbs. in flesh, and was highly delighted with the change; but along in February or March the Florida grip or something else got hold

of him, and he became so sick and discouraged that I have just learned he has moved back to Ohio with all his family and possessions. I have not learned, however, whether he shipped his little automobile back or left it there.

Now, had this good brother taken friend Keck's advice, and spent a winter in Florida before going down there with his family and all his possessions, think of what he would have probably saved in money alone, and perhaps unpleasant experiences as well.

Poultry Department

EDUCATING THE LEGHORNS NOT TO FLY; SOMETHING ABOUT INEXPENSIVE FENCES.

Most of us have discovered, sooner or later, that chickens can be educated, like other animals, in the matter of getting over fences or through them; but I suppose only a few of us have ever considered the matter of educating chickens *not* to fly. I have discovered this in our Florida home—that, when they get a fashion of flying over the fences, it is a hard matter to stop them. Clipping one or both wings promptly with the first hen that starts the habit will often wind it up; and after our flock has been away from the yard during the summer they seem to forget about flying over; and although our fences in Florida are only four feet high, last winter we had almost no trouble at all by the hens getting out. Just before we came away a few had learned the trick. Now, here is something from the periodical called *Poultry* that is new to me:

Last spring we built our breeding-pens on a plan new to us. We made them long, and but six feet wide, as the breeding-pens were made up of small numbers, from six to fifteen birds in a pen. The sides of these pens were made of three-foot poultry-netting, and they were covered over the top with six-foot netting. This gave plenty of head room for the fowls, and these enclosed pens were cheaper than those with high fences would have been. We have enough of these pens to furnish room for all the hens we kept over, about 85. During the breeding season they were kept in these pens almost continuously, and they soon learned that they could not fly out of them because of the netting cover. Not being given to reasoning, these hens have come to believe that a fence is insurmountable, no matter how low it is, and do not try to fly over the 26-inch fence. I am led to this conclusion by the fact that two or three times when a hen has wandered into the garden through an open gate she would allow herself to be caught before she would try to fly over the low fence.

We have concluded to keep these hens in this notion of staying behind a fence. Every few days we simply leave them in the pens all day, and we believe we can keep them from learning that a low fence can be got over. If this continues to work we have learned to save time and trouble, for we can build the covered runs at small expense, and orchard fences cost money, and a lot of it, in this country. Any one who will go to the trouble of building low covered runs such as we have used this year can

soon solve the problem of keeping fowls in subjection; and we consider this one of the most money-saving things we ever learned about the habits of fowls.

This covered poultry-yard, as described above, is a splendid arrangement for a hen and chickens where hawks are apt to be troublesome; and a three-inch-mesh netting, which is comparatively cheap, will answer overhead as well as any. Another point comes in right here. A two or three foot fence that would never answer to keep chickens in a yard will do excellent service in keeping them *out* of the garden. I have seen a two-foot fence keep Leghorns off the garden all summer—that is, unless some one of them happened to discover how easy it was to get over. Now, this point we have been speaking of applies to turkeys as well as chickens; and the same letter I have quoted from gives us the following:

We might add that our bronze turkeys have never been inside the orchard, although they were hatched and raised around the poultry-yard. In fact, these same turkeys, hatched in the spring of last year, have never been confined in any way—have unlimited territory over which to roam, and yet we have never caught one of them ten rods from the place where they were hatched.

You see the turkeys, had they been confined by a 26-inch fence, would have gotten out without any trouble; but when it was getting *into* the orchard, instead of getting *out* of it, it was a different thing.

Now, here is something more from the same periodical:

BEEF SCRAP FOR LAYING HENS; HOW MUCH AND HOW LITTLE IS NEEDED.

This season we concluded we would try to discover just how little beef scrap we could use and still get the maximum number of eggs. We soon found that we could reduce the quantity of scraps fed to the place where egg-production would fall off in a very noticeable way. Between 5 and 8 per cent beef scraps in the regular feed of hens seems to be about right. If cut below 5 per cent the number of eggs gathered becomes less almost at once. Feeding 10 per cent beef scrap seems to promote growth in young chicks, but hens do not seem to lay better than they do when a little less is fed.

Please consider that if your fowls, or, say, hens and chickens, have a run where

they can scratch and get more or less insects, the animal food may not be needed; but where they are kept in yards, in order to get the best results they must have both green food and meat in some form.

THE CONVERGENT POULTRY-YARD AS DESCRIBED IN OUR JULY 1ST ISSUE.

At the present writing, Aug. 1, I am a little disappointed to find so little notice taken of this new departure, for I am sure it is destined evidently to cut an important figure in farming and in poultry-raising in general. One of our agricultural papers mentions a dairy barn to be made on this principle. The silo stands in the center of the barn, which is circular; the cows with their heads toward the center. The feed is taken from the silo right across the alley to the cows' manger. The manure is gathered by driving around the outside of the barn. Although I am but little conversant with the dairy business, it seems to me this would be a wonderful saving of expense and time. But to get back to the matter of poultry, just think of the convenience of having eight, sixteen, or possibly more yards, for that matter, all running up to a common center. If a broody hen is found, just let her loose in a vacant yard. You can give her a setting of eggs, or break her of sitting, without any delay or running back and forth; or suppose you have a hen with a lot of chicks, no matter whether it is a common brood or sixty or seventy, as I manage, just put her in a vacant yard, where her wants and those of the chickens are all supplied, and they are also perfectly secure from all sorts of poultry enemies. At little additional expense you can also keep off hawks and owls as well as rats and wild animals. When you wish to separate the surplus cockerels, every thing is all fixed for that without any trouble. Any number of choice breeding-pens can be started in a twinkling; and every fowl in your possession has free range, and yet can be made perfectly secure at night without any chasing about.

In my Florida home last winter I had seven yards, besides the ducks. The yard for my cockerels was away off in one corner of my square five-acre lot. The ducks were in another corner, and my best pen of Leghorns in still another corner. This last pen was down near the creek by the boys' swimming-hole, and several times a dog got in among my chickens. They were so far away from the house that they were more meddled with than in the other yard. Now, with the convergent yards all the fowls on the ranch can be close by where

you sleep, so that it is an easy matter to note a disturbance in the night. At the same time, they can each and all radiate during the day all over the five-acre poultry-farm. A similar arrangement can be made for hens and chickens, say on a small scale. Most of you know how much work it is to take care of, say, half a dozen hens with chicks of different ages. Suppose each hen with her brood could come right up to some central point where you have chick feed, grit, oyster-shells, water, and every thing they need. All you have to do is to go into this central inclosure, close by your home if you choose, and every hen with her brood would rush up for the rations—no fighting nor quarreling. To save labor I used to have my chick feed kept in a covered can. The can had to be lugged back and forth from one yard to another, or else I was obliged to have a similar covered can near each hen with her brood. Of course the same arrangement works equally well with a fireless brooder or lamp brooder. You can have a dozen different brooders if you like, and one roof may cover them all, with radiating yards, so that the chicks may have range as fast and as far as they need it. I notice the poultry journals are recommending that each pen of fowls should have two yards, so you can grow green stuff in one yard while the fowls occupy the other. The radiating yards would be the nicest thing in the world for this purpose. Some one may suggest that this all sounds well enough on paper. Well, Providence permitting, in a very few days I expect to have the fun of arranging it on my five acres in Florida; and I am going to try to have something I shall not be ashamed to show visitor's when they come around. May be it would pay you during the winter time to take a trip down to that land you have all heard me talk so much about.

MUSTARD TO START HENS LAYING AND TO KEEP THEM LAYING.

Since saying what I did about mustard, from the book entitled "The Corning Egg-farm," and what I copied also from E. L. Keyser, there have been constant inquiries made in regard to how much mustard, how to feed it, and how often to feed it. I presume this will have to be settled largely by trial. I wish our experiment stations would lend a hand. All I know about it is this: I purchased a box of ground mustard at the grocery, and put a heaping teaspoonful into half a pailful of mash made of bran shorts, middlings, Indian meal, etc., stirring it thoroughly so as to have it distributed all through the dry bran. Then this was wet

up with water and given to about 75 hens every day. We also fed to little chicks the same mixture. During the time it was fed we had the most eggs we ever had from a like number of fowls. At the same time we gave them quite a little green mustard—the Florida kind that makes leaves some two feet long. The hens eat this very greedily, and I do not know but the green mustard might take the place of the more expensive ground kind. The Cornings use mustard bran bought at the mustard-factories, costing about a fourth as much as the ground mustard for table use. I presume it would be best for each one to make experiments according to circumstances. We have abundant evidence from different sources showing that the use of mustard, instead of being a detriment to fertility, acts quite the contrary. In fact, some stations have reported that they had a higher degree of fertility with hens fed quite liberally with mustard. We should be glad to hear from poultrymen, besides the Cornings, who have tested the matter on a considerable scale.

A HOPPER FOR WET MASH.

Like yourself I have dropped the bees a little, and changed the hobby to poultry. I keep White Leghorns, White and Buff Orpingtons, and Indian Runner and Buff Orpington ducks. I hatch with a Cypher incubator, and rear in Philo brooders and hovers. Philo hovers are good, but the brooders want to be in an open shed for the assistant's comfort. I know from experience with six this season. I have been puzzled over an efficient hopper for feeding *wet mash*. I got it at last. Make a tray, say 18x12x2; cut one end out of a 60-lb. honey-tin or kerosene-tin, and then cut back 1½ inches; put in your "wet" mash which should not be *wet*, but crumbly—the right condition for fowls; place the tray on it and turn it upside down; and if your fowls are like mine they will empty it clean without waste.

This hopper question for a "wet" mash cost me some experimenting and brain gymnastics, and the above simple arrangement beats all I've tried.

WM. CHAS. BROWN.

Mosgiel, Otago, New Zealand.

Permit me to explain that the tin can is cut off on opposite sides in such a way that, when inverted in the tray, there is a 1½-inch opening to permit the wet mash to get out to the chickens or to permit them to reach in and get it. I think the idea is a good one, especially for ducks, which are very much inclined to get their feet into the mash, and to make things "mussy" generally.

Health Notes

APPLES ARE RIPE.

I suppose that, this first day of August, most of you are rejoicing, like myself, in plenty of nice ripe apples; and even where you have not the pleasure of plucking them from your own trees when they are fully ripe, you are probably able to purchase them at the groceries or at the fruit-stands at a reasonable price. At least they *ought* to be reasonable, as apples are going to be plentiful in many localities.

The first to ripen here in Ohio are the old-fashioned Early Harvest, and the comparatively new Yellow Transparent—at least I have not been able to discover that there is any earlier apple known than the two I have just mentioned; and they are certainly a wonderful and beneficent gift from the great Father above to his hungry children. I do not know how it may be with the rest of you; but for myself there is no other fruit in the whole wide world that will take the place of luscious ripe mellow apples. I do not know which I like better—the Early Harvest or the Transparent. Sometimes I think one is ahead, and at other times the other. When the Transparent is so ripe that it can be peeled like a plum or a peach, it is then just right for my taste and for my digestion. When the old apples were all gone, about July 1, I began testing other sorts of fruit to see

if they would take the place of the apples; but I found nothing to hit the spot.

Frequently in very warm weather I have a little tendency to what used to be called "summer complaint;" and for several years I had a notion at such times that I would have to abstain from fruit. Three or four years ago, however, I discovered that nice mellow apples, eaten freely in place of my usual supper, about 5 o'clock, were really the best remedy. Please do not imagine, however, that I mean that sweet or very sweet apples can be taken in this way. They are pretty sure to make trouble. But tart apples, like the two kinds I have mentioned, seem to neutralize and quiet the disturbance. The acid in the apples (malic acid, I believe) seems to me to be nature's remedy for a bad taste in my mouth and for a disturbance in my digestive apparatus. In ordinary health I eat four or five fair-sized apples, sleep soundly afterward, and awake in the morning (especially if I sleep outdoors, or somewhere equivalent to outdoors) with my mouth tasting sweet and clean—no bad breath, no unpleasant bitterness.

Now, of course I can not be sure that the use of apples will answer in a like manner with everybody else; but I enjoy my fruit so much, and it is so conducive to excellent health, that I feel free to urge

you to try it. In place of your regular supper or third meal, use simply apples and nothing else; and after nature catches on to the fragrant program, see if you do not experience a like benefit with myself.

After the two early apples I have mentioned, the Red Astrakhan comes along—one of the most enticing-looking apples with its beautiful streaks and variations of red, then its delightful acid juiciness. A little after the Red Astrakhan comes the Maiden's Blush, so justly celebrated over all the world; then the Gravenstein, that stands almost if not quite at the very top of the list in quality. After this the ramboes and pippins, too numerous to mention.

Just now our good friend E. C. Green, formerly with the Ohio Experiment Station, sends me a little basket of Red Junes. The shape is conical, somewhat like the Yellow Transparent; but the red is its distinguishing characteristic. When fully ripe, some specimens are of such a deep dark red that they are almost black. I believe there is an apple called the Black Ben Davis; but I have never seen one so red as this deep dark-red apple, the Red June. The Red June in quality is hardly as acid as the Yellow Transparent; but it is a beautiful apple notwithstanding.

Now, almost everybody can have at least a few apple trees. If you have room for only one, have that; and when you get it, give it good soil and cultivation. Learn to prune it judiciously, and enjoy the fun of seeing the apples grow from bud to blossom and then to ripe fruit ready to be gathered by your own hand. Unless you have had experience you do not know what a difference there is in fruit grown under cultivation and otherwise. Some years ago I had a queer neighbor whose great hobby was stable manure; and in the midst of his stable-manure garden was an apple tree. When the apples were just ripe he handed me a good big yellow mellow one. I tasted it with a happy surprise, supposing it was a new variety; but he informed me, with a smile, that it was only the well-known Early Harvest under the stimulus of "high-pressure gardening." And this reminds me that you want to study up on spraying so as to avoid getting *wormy* apples. A great part of the world does not yet know or dream of the possibilities in the line of improved apple culture. I wonder if it will be wrong to paraphrase as follows the old saying usually credited to good old Izaak Walton: "Doubtless God *could* have made a better fruit than the apple; but doubtless he *never did*."

DR. WILEY TALKS TO US ABOUT HABIT-FORMING DRUGS FOR CHILDREN.

We clip the following from the *Union Signal*. It is part of an address given by Dr. Wiley at the 50th anniversary of the National Educational Association at Chicago, July 6 to 12.

Through the teachers he gave to the fathers and mothers some wise advice: "Don't let the children use stimulants—distilled alcohol, tobacco, tea, or coffee. Those are wise parents who forbid these things; and yet right under the nose of the parents and of the city fathers in every drugstore in this city the children are permitted to buy at the soda-fountains 'dope' drinks which contain the very alkaloids and stimulants which the parents keep out of their children's mouths. I want the teachers of this country to help me engage in this crusade to put a stop to the sale of medicated drinks at the soda-fountains. You do not now find much cocaine in the drinks, but there are hundreds of so-called soft drinks which contain caffeine in large quantities. Coca Cola is a type of this 'dope' drink sold all over the country to the injury of every man, woman, or child who takes it.

"Another danger to which our children are exposed," declared the doctor, "is the everlasting habit of drugging themselves. The continued use of these medicines and drinks will in time produce a taste and craving for drugs. The school is the proper place in which to create an anti-drug sentiment, so that the next generation may not be ruined by the habit."

Directing his remarks for a minute to any editors who might be in the audience, he said: "Editors, do you realize your responsibility for admitting into your columns every kind of so-called remedies for any kind of disease? By so doing you are threatening the very bulwarks of the country."

As an illustration of the value he placed upon the ordinary cold remedy, he told the following incident: "My barber came to me last winter, telling me that his children all had colds, and he had procured from the drugstore some remedy guaranteed to cure these troubles. 'But,' he complained, 'I find it contains ten per cent of alcohol, and I don't want to teach my children to become drunkards. What would you do?' I said to him, 'I will give you a prescription if you will take it. Take that bottle to-night, into the room where those children sleep, and open wide every window, then throw out of a window the bottle of stuff, and leave the children to sleep in the room, and I'll warrant your children will get well.' A few days later I met him, and asked the result of his use of my prescription. With a glum look he replied, 'Taint no use to tell a woman nothin.'"

In closing his address, the doctor said:

"I believe it is the schoolroom, not the national conventions of politicians, that is the hope and safety of this country, and I for one will never despair of the republic if all the teachers will preach to the people sanitation, hygiene, fresh air, and abstinence from 'dopes' of all kinds."

I have for a long time felt that we were not only wasting money but harming our children, and, for that matter, grown-up people, by patronizing the soft-drink stands at our drugstores. People who talk about the "high cost of living" seem to think it is a small matter to spend a few nickels every day for ice-cream and ice-cold drinks. I feel sure this habit has much to do with the digestive troubles that afflict our people of the present day. And the saddest part of it is that the victims of these troubles imagine they are going to get relief by going back to the *same drugstores* and buying patent medicines.

Just a word about sleeping in a tight

room with doors and windows shut, even in summer. Mrs. Root called my attention to the fact that a great many children or young people—young girls who need pure air, perhaps, more than they need any thing else—persist in shutting every door and

window of their sleeping-room. Talk and remonstrance do not seem to do any good. They seem to think it an invasion of their rights if the suggestion is made that, during sleep, one needs the best air, and all the air there is outdoors.

Temperance

A DRUNKEN ENGINEER, ON THE MORNING OF JULY 4, CAUSED THE DEATH OF 41 PERSONS.

The *Cleveland Press* says:

SAYS ENGINEER WAS SERVED GIN; BARTENDER DECLARES SCHROEDER DRANK BEFORE WRECK.

Engineer Schroeder, who was in the cab of the express train that smashed into the Buffalo limited on the Lackawanna railroad near here early Fourth of July morning, causing the death of 41 persons, will take the stand in his own defense next Monday afternoon.

The coroner's inquest was adjourned Thursday until that time, on the assurance that Schroeder will then be sufficiently recovered from his attack of nervous prostration to tell his side of the case.

One witness has flatly sworn that Schroeder was drunk less than four hours before he took his train out. Three other witnesses, called late Wednesday, declared this false.

Other witnesses swore that they saw Schroeder assisting an intoxicated neighbor home four hours before he left on his run. Two saloonkeepers testified that Schroeder drank only water.

Charles Sharp, a bartender, testified he sold gin to Schroeder the night before the wreck. Schroeder had at least two drinks of gin, Sharp testified.

That Schroeder was called twice to go out on the run was made a part of the records.

Of course an effort was made or is being made to prove that the man was not drunk. You may be sure the brewers and liquor men will be on hand and ward off this terrible blow at this business if possible. The above clipping intimates as much. Now, right away after this comes a decision by the Pennsylvania road to drop liquor, as will be seen by reference to the item below.

THE GREAT RAILWAYS AND THE WAY THEY ARE COMING TO OUR RESCUE.

Here is a clipping from the *National Stockman* that not only pleases me but suggests something I had not thought of. Read it:

LIQUOR ON TRAINS.

The Pennsylvania Railroad announces that the sale of intoxicants will be discontinued on all its trains east of Pittsburg, and that the same rule will be extended to all roads in the great Pennsylvania System. We believe the public should express its approval of this policy, and hereby record ours. The railroad is bound to be the recipient of a large assortment of knocks and kicks from those who want intoxicants served on trains, hence it should have the moral support of those who believe its policy to be right. Railroads forbid their employees to use intoxicating liquors, and are inconsistent to the last degree when they sell them and compel some employees to handle them.

I confess it had not occurred to me, the awful inconsistency of demanding that employees should neither drink nor be found in a saloon, whether on duty or off, and at the same time sell liquors and ask employees to act as bar-tenders for the millionaires

who may happen to ride in their Pullman cars.

How long is it going to take the rest of the world, say manufacturers, for instance, to come out in the open, and declare war on the liquor traffic?

Later.—The following, from the *Plain Dealer*, corroborates what I have just been saying:

Employees of the Delaware, Lackawanna & Western Railroad must not drink, either on or off duty. Neither are they allowed to play poker during hours of idleness. All of this appears in the new order amending Rule G., of the transportation department of the line. A part of this amendment reads:

"The use of intoxicants while on or off duty, or the visiting of saloons or places where liquor is sold, incapacitates men for railroad service, and is absolutely prohibited. Any violation of this rule, by employees will be sufficient cause for dismissal."

Investigation of the recent disastrous wreck at Corning, N. Y., led to the issuance of this order.

So it seems that prohibition *does* prohibit—at times.

We clip the following from the *Union Signal*, under the heading "Era of Prosperity in North Carolina."

EX-GOVERNOR GLENN, OF NORTH CAROLINA, TESTIFIES TO IMPROVED CONDITIONS IN HIS STATE.

At the recent meeting in Louisville, Ky., of the General Assembly of the Presbyterian Church, Ex-governor Glenn told of the advance in his State since it abolished the liquor business:

"I come from a State where we have driven liquor out, and there is no grass growing in the streets of any of our cities and towns. Whereas North Carolina was noted—and shamefully so—only for her tar, pitch, and turpentine—now the State is entering upon an era of prosperity the like of which she has never known. She is gaining by leaps and bounds and this is attributed to state-wide prohibition. Crime has diminished fifty per cent, as is shown by the fact that forty prisons in the State are empty and idle. Formerly mothers were ashamed to allow their children to go to school because the fathers had taken the clothes from their backs that strong drink might be purchased. Since 1907, when the State went dry, the school attendance has doubled. There has been an increase of one-half in the attendance at the Baptist, Methodist, and Presbyterian churches, and a great wave of spirituality has swept over the State.

With the above report in view, and a number of similar ones from prohibition States, how *can* the people of any State continue to vote wet?

WET AND DRY IN OHIO.

Somebody has remarked that great reforms go by waves, and that every big wave for righteousness has a lull following, or perhaps a receding. When so many Ohio counties voted dry all at once, a good many

of us were discouraged at the backset the other way; but is it not possible that another wave for temperance is gaining force and volume? See the following, clipped from the *Cleveland Plain Dealer*:

BRYAN, O., July 23.—Williams Co. voted to-day under the Rose law, and by a majority of 1779 decided to remain dry.

How does that sound—1779? Praise the Lord for nearly 2000 majority on the "safe and sane" side. I feel a little sorry, however, that our friend the *Plain Dealer* did not have just one word of encouragement for the good people who worked so hard to bring this about.

While we are about it, here is something more that just came to my attention:

After October 1, absinthe, which is being sold in increasing quantities in the United States, will be barred from importation, and also from being transported from State to State. The Pure-food Board to-day decided that absinthe as a beverage is dangerous to health.

We rejoice to know from the above that absinthe is ruled out because of its being a dangerous habit-forming drug, and also because it can not be any longer transported from State to State. Now if Uncle Samuel would just say the same in regard to intoxicating liquors, what an achievement it would be!

By the way, the French government is now engaged in a conflict against absinthe, as its direful effects are getting to be so widespread as to affect materially the welfare of the nation. Its use was introduced into France from Algiers, where the French soldiers became greatly addicted to its use. Its use is now forbidden in the French army.

Later.—Switzerland has prohibited the drug.

BEER AND POLITICS.

See the following, from the *New York Tribune* for July 30:

LINER'S CARGO ALL BEER; GALLEON OF AMBER TREASURE COMES TO OUR RELIEF.

A great cargo of beer stole into this port last night under the cover of darkness in the hold of the North German Lloyd liner *Main* from Bremen. She had a few passengers, but they were outnumbered twenty-five to one by beer-kegs.

When the report came up from Quarantine that the *Main's* entire cargo consisted of 2583 barrels, Herr Knirrm, the beer expert of Hanover Square, was called up on the telephone and told of it. He bubbled over with delight, so to speak. "I am not surprised," he said. "I thought something like that would happen. There has been a shortage of Pilsner and Munchner since the political conventions at Chicago and Baltimore, and the sangerfest recently held in Philadelphia has been a big item in diminishing the supply.

"The cargo in the *Main* is a big beer consignment. There are not many importers of beer in this country, and the biggest of them imports only 61,000 half-barrels a year."

When it comes to pass that a political convention results in a shortage of beer in our large cities such as Philadelphia, Chicago, and Baltimore, to the extent that

it exhausts our own national resources, what sort of president and governors can we expect from such great political conventions? We are much obliged to the *Tribune* for turning on the limelight, even should it prove true that their sympathies are with the brewers.

ELECTROCUTING THE MAN WHO SOLD THE DRINK, ETC.

Mr. A. I. Root:—In GLEANINGS for July 15, page 460, I notice you use the following language: "But if anybody is to be electrocuted, let it be the man who sold the drink." Now, my dear friend, I trust you will pardon me if I take issue with you on that point. Would you sell a man the right to engage in a certain line of business, take his money for the privilege, put it in your pocket, and then electrocute him for engaging in the business that you have just sold him the right to engage in? The man who sold the drink was doing a lawful business, and had paid his money for the right to do so. His business is made lawful by the party in power—a party that is sustained and kept alive by the vote of Christian men who knowingly sustain the liquor traffic by voting for a party that has legalized, upheld, defended, and protected the liquor traffic whenever in power ever since the party had an existence, and is doing it to-day.

It is easy to see why prohibition doesn't prohibit—because the law is put into the hands of old whisky-party officials who don't want it to prohibit. "Put new wine into new bottles, and both are preserved."

Morenci, Mich., July 17. W. S. G. MASON.

Amen to what you say, Bro. Mason. When I said what I did, I did not contemplate voting for a man who is afraid to "come out in the open" against the liquor business. Now it is up to Woodrow Wilson to come out thus and tell us whether or not he has anything to say in regard to the rum traffic.

WHO SHALL BE ELECTROCUTED? ETC.

Mr. Root:—In commenting on Thomas Dewees' letter, page 460, July 1, you say the letter has given you a new suggestion, saying, "Do not put to death any more men who commit murder under the influence of drink; but if anybody is to be electrocuted, let it be the man who sold the drink." I shall have to differ with you as to the one who should be electrocuted (if any should). I say, electrocute the man or men or political party who gave the man the privilege to sell the drink that makes men drunk and then commit murder without a license. I am not a saloonkeeper, by any means; but let us give them their just dues. A saloonkeeper, so far as the liquor traffic is concerned, is no worse than the man or men or political party that gives him the license to sell the drink. This thing of laying the blame on the saloonkeeper for all the drunkenness and murders, etc., is old. It would have done 25 years ago; but we have become too much enlightened now to lay the blame on them alone. Lay it where it belongs—on the voter. You say, under the heading "Prevention Better Than Cure," "Not one of the candidates for the presidency of the United States—that is, one with any prospects of election—dares open his mouth in regard to recommending prevention as being better than cure." Who really knows who has any chance of election? If all the church members who vote, and all the professed Christians, would vote for the candidate who dares open his mouth in regard to recommending prevention as being better than cure, we could put Mr. Eugene Chafin in the White House in 1913. He is the man who, if elected, would "make mention" of the liquor traffic in his message. I am like you in some respects. I am watching and praying, and also voting for a man and party that fears God but does not fear the liquor powers.

Rosedale, Ind., July 29.

J. R. HEATON.